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CLINICAL LECTURE.

CARDIAC GRIPPE.*

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Gentlemen: At this time the grippe constitutes a current topic of study. The malady attacks everybody indiscriminately, but not in the same manner. As far back as 1691, Wepfer said of this affection that it was a true Proteus, because of its assuming in its manifestations all manner of interesting forms. Of these we shall to-day examine only the cardiac and vascular phenomena.

Epidemics of the grippe do not belong to recent times, for we know that during the years of 1239 and 1311 the disease exercised a deleterious influence over Europe. It was, however, during the epidemic of 1580 that it spread over Europe its disastrous ravages. G. Henish, of Saxe, spoke then, for the first time, of this disorder as attacking the præcordial region, producing palpitations and a small, irregular and accelerated pulse. Still later, in 1709, there were found at autopsies polypoid concretions of the great venous trunks of the heart. It was noticed also, in 1729, by various authors, that the disease produced syncope and præcordial distress. Beccaria, of Bologna, in 1730 asserted in a most categorical manner, that in this affection "pain existed over the region of the heart, the pulse being, at first, compressible and uneven, and afterwards, in the progress of the malady, it became large, full, hard, and frequent or hard and uneven." A great number of sudden deaths were reported at Edinburgh in 1732, and by Saillant in 1775. During the epidemic of Silesia, in 1736, intense pains of a lancinating character were observed to occur over the præcordial region. In 1743 Ludwig Huckel observed lipothymies and a small and accelerated pulse. Finally, in 1800, Gilibert called attention to a rapid, weak pulse, almost filiform, accompanied with more or less prolonged distress over the region of the heart.

You see, therefore, that the cardiac troubles produced by the grippe have been known for a long time back; but not all the symptoms of this nature were previously observed, either because the classification of such symptoms was a defective one or because the disease did not remain long enough for the heart and the vessels to become affected during its course or after the establishment of a cure. This lecture, in which I will try to record my personal observations and those of other authors, will be devoted to the discussion of the subject from the interesting point of view referred to. I will endeavor to show you that during an attack of influenza the heart and the blood-vessels may become equally affected. We have, therefore, to study *cardiac* and *vascular grippe.*

1. *Cardiac Grippe.*—Any of the constituent parts of the heart may be affected: the pericardium, the endocardium, the myocardium, and, finally, the nervous mechanism itself.

a. Grippal Pericarditis.—We made, the day before yesterday, an autopsy on a very interesting patient. After presenting during life the symptoms of a grippal pneumonia followed by those of a meta-pneumonic purulent pleurisy, our attention was called to the heart, owing to the manifest signs of pericarditis, probably of a secondary nature, and due to the propagation of the pleuro-pulmonary inflammation. Albumen was abundantly found in the urine; the tongue was dry; the adynamic condition quite marked; and the patient died at the time when the question of empyema was being discussed. The *post-mortem* confirmed our diagnosis; it revealed an abundant purulent pleural effusion on the left side, accompanied with atelectasis of the lung; a dry pericardium with numerous adhesions, and a myocarditis which will be confirmed, undoubtedly, by microscopical examination.

*A clinical lecture delivered at the "Hôpital Broca."

Here we have, therefore, first an attack of the grippe, followed by *pneumonia* and *pleurisy*, and, finally by *pericarditis*, undoubtedly secondary to the pleurisy. This is not always what happens in such cases, for purulent pericarditis has been observed at the very onset. Such, however, is not of frequent occurrence.

Grippal pericarditis has been noticed by other authors. Fereol (*Soc. Med. des hôpit.*, February 21, 1890) has spoken of "a distressing dyspnœa resembling that occurring in certain forms of myocarditis," and asserts to have observed four cases of pericarditis during the epidemic of 1889–1890. Menetrier, in his remarkable thesis of 1886, affirms that pericarditis is so frequent in the course of grippal pneumonia, that it may be latent, and refers to two observations of his own, to one of Bucquoy and to three others of Cornil (*Jour. des conn. méd.*, 1886), in all of which there were found, at the autopsy, abundant false fibrinous membranes on the pericardium, without a single symptom or sign having been recognized during life. On the other hand, pericarditis may be diagnosed, as in the case we have mentioned. Jaccoud has reported an instance in which there were developed phenomena of cardiac asthenia, phenomena which, according to this author, lead quite frequently to a fatal termination.

In fact, the gravity of grippal pericarditis is due to two principal causes: its frequent complication with myocarditis, and its purulent nature. In the first instance, inflammation of the pericardium is due most generally to pneumococci and is nearly always secondary to a pleuro-pneumonia. Thus Grasset (*Montpellier Médical*, 1890) has seen a case of pericarditis from which were removed 700 grammes of a dirty, greenish, thick and homogeneous liquid, accompanying a true pleural abscess. Very rarely is a pneumococcic purulent pericarditis of a primary nature, that is to say, independent of all local lesion in the lung or pleura. A pneumococcic pericarditis is, in fact, like certain forms of endocarditis, indirectly produced by the grippe, and ought to be considered as a complication of this malady. The proof of this assertion lies in the fact that other microbes, such as staphylococci and streptococci may similarly be found in the purulent liquids.

Grippal pericarditis is, nevertheless, not ordinarily of a purulent nature; you will find some cases in which the liquid is serous or hæmorrhagic, as I have observed in two instances. Most generally the pericarditis is dry, there being but little liquid of a pale yellow color, as is similarly found in cases of purulent pleurisy or in pneumonias which have terminated by gray hepatization. At all events, it is a complication which claims our attention and must be closely studied in order to recognize it.

(*b*) *Grippal endocarditis.*—In the febrile infectious diseases endocarditis may be of two kinds: on the one hand, it may be simply infectious without being contagious, infectious because it is due to the presence of bacteria; non-contagious, because it is localized in its effects and is not disseminated through the action of the micro-organisms. Then, again, it may be both infectious and contagious at the same time, causing throughout the circulation the most serious general symptoms.

Cases of the first kind have been reported, but they are rare. They occur generally in persons subject to old valvular lesions, in whom the slightest cause may produce the condition referred to. Thus a chronic endocarditis may be the cause of the acute form. Similarly, a lesion of the valvular orifice, which has been for a long time in a latent condition, may be so influenced by the grippe as to produce the most serious symptoms. In reference to this point Stokes in 1840 reported the following case:

A man of middle age, apparently healthy but far advanced in the inflammatory disease in question, was attacked by the grippe. Under its influence it was found for the first time that the heart became susceptible of the most extraordinary irritation. The violent and tumultuous action of the organ could be perceived over a large portion of the chest, and was accompanied at the same time by a murmur which occurred during the first sound. For three or four days the patient appeared well, but he died suddenly. At the autopsy, there was found calcareous deposits on the aortic orifice which so obstructed this, that it seemed at first sight as if the opening were entirely closed. There was, in fact, only a very small aperture through which only a fine probe could be introduced. This man never exhibited during life any symptoms of cardiac trouble, and it is possible, according to Stokes, that, owing to the extraordinary size of the deposits, the affection was not recognized during a more or less calm condition of the heart. Thus, in this patient the symptoms of cardiac disease were made apparent through the action of the grippal attack. The heart was disturbed in its action, which proves, on the whole, that the painful sufferings experienced in the course of a disease depend, within certain

limits, at least, more upon the vital than upon the physical condition of the organs.

Graves has reported a similar case relative to a large obstruction of the aortic orifice (complete ossification of the aortic valves and sinuses, accompanied with retraction of the opening). This patient, who had not exhibited any heart trouble, was, six months before, suddenly attacked with symptoms of distress on going up a hill. A month before death he had the grippe, and consulted Graves. At that time a murmur was detected, occurring during the first sound of the heart. He had bronchitis, and suffered from cough and attacks of asthma. These symptoms progressed rapidly; orthopnœa and dropsy were increased, and death overtook the patient in a short time. Here, according to Graves, two causes contributed to diminish the vitality of the heart and hasten a fatal issue: the efforts of the patient in climbing the hill and the invasion of influenza.

Primary, simple endocarditis may give rise, after an attack of the grippe, to permanent lesions of the orifices. This must be rare, however, judging from my personal observations and especially from the fact that authors are silent in this respect. Nevertheless, Rochoux some time ago referred to a case of a woman, 28 years of age, who, after an attack of influenza, suffered from palpitation, oppressiveness, pulmonary œdema, with signs of stenosis of the left auriculo-ventricular opening, a lesion which was verified at the autopsy. The question arises, however, whether the mitral stenosis did not exist previously, and was only aggravated by the grippal affection.

In regard to the infectio-contagious endocarditis (ulcero-vegetating endocarditis), this has been observed during the course, or in the convalescing period of the grippe, being developed not only in a previously affected endocardium but also in a healthy one. The following case is reported by Oulmont and Barbier (*Médecine Moderne*, July 9, 1891):

A woman, 34 years of age, was attacked by influenza in November, 1890, and soon after exhibited symptoms of pericarditis and of mitral and aortic endocarditis (systolic murmur at the apex and base of the heart). She died on the 6th of February, 1891, with typhoid symptoms. At the *post-mortem* there was found a slight pericarditis accompanied with small points of ecchymosis disseminated over the visceral pericardium, and a small amount of a reddish serous liquid in the pericardial sac. Surrounding the left auriculo-ventricular opening there were found small vegetations, especially over the large leaflet of the mitral valve, the small leaflet having been transformed into a cauliflower vegetation of the size of a cherry. Under a fibrinous mass a little valve was discovered, roughened and covered with vegetations, some of these being in an ulcerated condition. At the aortic orifice the valves, posteriorly and anteriorly, presented a roughened appearance, with a few irregular nodules. All these parts were in a reddened condition. The aorta was intact. Bacteriological examination revealed a streptococcic endocarditis.

Flessinger, of Oyonnax, (*Gazette Méd. de Paris*, September 2, 1891) reports the case of a child, four years of age, in which, on the 17th day of influenza, a mitral endocarditis was detected, a dull murmur occurring during the systole and diastole, being communicated as far as the axilla. The child died seven days after with pronounced cardiac symptoms, such as cyanosis, coldness of the extremities, etc. No autopsy was made.

You will also find many cases of infectious grippal endocarditis, of both a benign and malignant nature, reported in a work of Pawinski (*Berl. klin. Wochen.*, 1891, Nos. 28, 29 and 30). Finally, G. See (*Acad. de Méd.*, April 19, 1890) asserts to have observed cases of endocarditis resembling pyæmia. On *post-mortem* streptococci were found in the vegetations.

At the recent Congress of Marseilles (*Congrès de Marseille*, Sept. 21, 1891, I reported two analogous cases, and, especially, one of vegetative endocarditis due to pneumococci over the aortic orifice. This was that of a patient who had suffered for a long time previously with chronic aortitis without murmur, but in whom, after a very serious attack of grippal pneumonia, there was rapidly developed a pronounced systolic murmur with all the symptoms of an infectious endocarditis. The autopsy confirmed the diagnosis. I have seen two other similar cases, with the difference that in these instances the endocarditis affected in a sudden manner a sound heart. In these two cases the lesions invaded especially the aortic orifices.

Other cases of the same nature have been observed, and during the epidemic of 1886, Ménetier found the endocardial complication to be of a comparatively frequent occurrence, having met with it seven times at L'Hôpital de la Pitié. In these instances there was found a vegetating endocarditis of the tricuspid valve, in addition to old mitral lesions.

I must still cite the following observation: one of Lanceraux (*Soc. Anat.*, April 2, 1886) relative to a vegetating endocarditis of the

mitral and aortic orifices; one of Brourdel (Mémoire de Netter, *Arch. de Physiol.*, 1886) which was a case of aortic ulcerated endocarditis occurring in a patient suffering from old mitral lesions; and still a third reported by Hanot (*Arch. de Méd.*, 1886) which consisted of a suppurative pneumonia, accompanied with recent endocarditis of the aorta and suppurative meningitis and diplococci in the exudate. This last one, apparently of a complex character, occurred in a patient who, after the defervescence of a pneumonia of the base of the left lung, was attacked by delirium for six days, followed by right hemiplegia accompanied with endocarditis, this being characterized during life by a marked systolic murmur.

In the majority of these cases there has been found in the depth of the vegetations the same pathogenic germ, that is, the same as that causing pneumonia. The seat of the endocarditis is generally at the aortic orifice and is rarely accompanied with emboli owing to the peculiar disposition of the vegetations. Infectious pneumococcic endocarditis appears chiefly in two forms: In the first place, it may occur conjointly with pneumonia, but in this instance it is not easily recognized, since its symptomatology is shrouded, so to speak, by that of the pulmonary complication. Most generally the endocarditis follows a pneumonia, coming on the same day of, or many days after, the defervescence of the pulmonary inflammation; then the fever returns, the cardiac symptoms become more pronounced and along with these a typhoid state is established. Secondly, endocarditis may come on *pari passu* with cerebral symptoms, these being due to a grippal suppurative meningitis. Finally, in rare cases pneumococcic endocarditis may be developed primarily without any pulmonary complication.

It must not be considered, however, that an infectious endocarditis developed during the course or the convalescence of grippal pneumonia is always due to the same germ. Other micro-organisms than pneumococci have been observed. Streptococci and staphylococci have been found in the valvular vegetations. This proves, once for all, that we do not have one but many kinds of infectious endocarditis; it further shows that the grippe is the resort, so to speak, of numerous germs, and that the disease is characterized especially by the frequency of microbian associations and of secondary infectious processes. This explains why influenza is such a complex and troublesome affection. An important case is reported Jaccoud (*Acad. de Scien.*, May 24, 1886) which sustains this assertion. At the autopsy of the patient, there were found pneumococci in the hepatized lung and staphylococci in vegetations of the mitral valve; that is, there was an association of the parasite of pneumonia and of the microbes of suppurative processes.

c. Grippal Myocarditis.—This is one of the results of the infectious nature of the disease. Myocarditis may exist during an attack of influenza as during other maladies of the same nature. At the autopsy of a case the cardiac muscle exhibited a deadly pale coloration; the organ was heavy, of a soft consistency; and on carefully examining the coronary arteries there was found an obliterating endarteritis upon which depended the lesions of the myocardium.

A Russian physician, Wassilief, of Alexandre Hospital at St. Petersburg, has pointed out myocarditis as one of the complications of influenza. I have told you that it is associated with pericarditis, and, undoubtedly, with myocardiac degeneration to which were attributed the serious symptoms exhibited in the three cases reported by Letort. These symptoms were weakness of cardiac action—frequent, small, uneven, irregular and trembling pulse; painful sensations over the middle of the sternum; earthy pallor of the face; cold and cyanosed extremities; and rapid death. Acute myocarditis, however, is rarely so pronounced, and does not generally occur except through atony or cardiac collapse, or still when arhythmia, with or without tachycardia, is present. Arhythmia must always be carefully studied because it is a symptom that plays an important part in all acute or chronic myocarditis, since the rythmical action of the heart is a function of the cardiac muscle and not of the nervous mechanism of the organ. Sometimes also, the irregularity of the pulse may be manifest as a phenomenon alone of the grippal state, of which Potain has cited two examples; but this simple arhythmia, free from all other symptoms, is not sufficient by itself to constitute a diagnostic point of acute myocarditis. It is, in influenza, characterized by a weakness of the first, and afterwards the second sound; sometimes by leipothymia, syncope, embryocardia (of which I shall speak later on) and a species of a peculiar *trotting* sound. This is due to an effort of the systole to occur in two periods, and may be represented by a long period between two brief ones, while the true galloping bruit is characterized by two short periods followed by a long one, or a long one followed by two brief ones.

A *sudden* or simply *rapid* death may be observed during an attack of the grippe, following a syncope. To explain this phenomenon three hypotheses may be advanced: Is the accident the result of profound nervous alterations which we shall study later on, or the result of a myocarditis, or of a species of anginous syncope? When the first manifestation of the malady is one of syncope, and when it is accompanied (as I have seen it many times) with sudden weakness of the lower extremities, it can not be attributed either to a myocarditis, which cannot be developed so rapidly, or to a cause of anginous character.

It must be admitted that the affection, from the start, may localize itself in the medulla, which is proved by the observation of Burlureaux (*Gazette Hebdomadaire*, January 25, 1890) relative to a patient who, immediately after an attack of syncope, had epileptiform convulsions. A patient of Potain (quoted by Duflocq in the *Rev. de Méd.*, 1890) was suffering from intestinal grippe; in a short time the pulse rose to 130, after a while to 150; at times this was small, compressible and filiform; suddenly death occurred, brought on by an attack of syncope. May the action of intestinal reflexes be considered in this case? Such a thing is possible, but it is difficult of demonstration.

Another patient had an initial syncope, together with acute lumbar pains. It is probable that in this instance the nervous system was involved. Still another patient under my observation who after some time exhibited symptoms of arterio-sclerosis of the heart (dyspnœa and somewhat vague symptoms of anginous nature), was taken after an attack of influenza with a severe præcordial pain and died suddenly. It is difficult not to believe, in this case, in the existence of an anginous syncope.

Grippal angina pectoris has been likewise observed during the various epidemics of influenza. The epidemic of 1729 was especially characterized by syncope, by an intense and lancinating pain over the præcordial region. Recently, in 1856, Bertholle called attention to a sensation of constriction occurring over the sternum. A short time before, Malcrops, of Brussels, in a work upon "the grippe and its epidemics" (1884) had referred to a pain felt over the superior fourth, third or half of the sternum.

In 1889 I made some significant observations, and I then insisted upon two things especially: Firstly, that in anginous patients the sterno-cardiac attacks are of an aggravated character, these being intense and of frequent occurrence; secondly, (*Rev. gén. de Cli. et de Thér.*, January 16, 1890, and in this I was followed within three days only by Peter (*Bullet*) *Méd.*, January 19, 1890) that there exists a *grippal angina pectoris*.

Other authors have made similar observations, and thus an English physician, Mariet (*The Lancet*, March 29, 1890), has reported the case of a patient who succumbed to an anginous attack on the 18th day of the grippe. In the majority of cases, however, it may be said that in the patients suffering from chronic angina, the attacks of angina are suddenly aggravated by influenza. I hope, at my next lecture, [to appear in the next issue of the REPORTER], to show you the reason why all cardiac affections are thus aggravated, and shall consider the damage wrought by the grippal poison upon the nervous mechanism of the heart and the blood-vessels.—*Le Bulletin Médical*, February 3, 1892.

COMMUNICATIONS.

A SUCCESSFUL CASE OF LATERAL ANASTOMOSIS OF THE ILEUM FOR MALIGNANT STRICTURE, WITH A DISCUSSION OF THE OPERATIVE TECHNIQUE.*

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I saw the patient, Mrs. E. C., for the first time on November 28, 1891, in consultation with her physician, Dr. Thomas Curry, of this city. She gave the following history: Twenty-eight years of age, and married nine years. She had had five children at term and two miscarriages. Three years ago, when five months pregnant, she fell from the window of the second story of her house, striking with her back and occiput upon the pavement below. This accident resulted in a slight uterine hæmorrhage, but the pregnancy was not interrupted, and she went to full term. Shortly afterward however, she began to suffer from epileptic attacks. These continued up to eighteen months ago, since which time she has been entirely free from them. On August 20, 1891, she was delivered of a hydrocephalic child. The labor was natural, and was not followed by any puerperal complications. At this time she was in excellent health, and weighed 185 pounds. Shortly after getting up, however, her health began

*Read before the Philadelphia Medical Society, March 9, 1892.

to rapidly fail. She began to have frequent attacks of violent abdominal and pelvic pain, preceded by the movement of gas in the intestines. Her abdomen was always greatly distended, which added to her discomfort. There was obstinate constipation, and the bowel movements could only be induced by purgatives and rectal injections. These movements were always small in amount, and caused a great increase in the abdominal pain and tenderness. She had constant nausea and vomiting, and the abdominal distension was increased after taking food. She continued to lose weight and strength, and suffered from night-sweats. Seven weeks after her confinement her menstruation appeared, but it has not recurred since. Her weight at the time I first saw her had been reduced to 115 pounds.

On examination, I found the abdomen distended below the umbilicus. It had the appearance of a tumor, filling up the lower part of the abdominal cavity. The abdomen above the umbilicus, although distended, was not greatly so. Percussion gave a tympanitic note over the entire abdomen. No tumor could be felt on palpation. Indigation gave negative results. As I was unable to demonstrate by my examination the existence of a new growth, I looked upon the cause of the chronic obstruction as being due to intestinal adhesions, the results of a localized peritonitis. Cœliotomy was, therefore, urged, and consented to by the patient.

Operation. Cœliotomy was performed at the Polyclinic Hospital on November 30, 1891, Dr. J. H. Gibbon, senior resident of the hospital, and Mr. Louis J. Borsch assisting in the operation.

Upon opening the abdomen, which was done in the median line below the umbilicus, the omentum was found adherent to and blocking up the entrance to the pelvic cavity. After freeing these adhesions, the pelvis was examined, and its organs found in a normal condition. The small intestines were greatly distended and adherent to each other at several points. These were then carefully separated. Up to this stage of the operation the conditions found seemed to confirm the diagnosis of an old peritonitis, resulting in intestinal adhesion. The existence, however, of the distension indicated a stricture at some point in the bowel, due either to additional adhesions or a new growth. With this view of the case in mind, the examination was carried still further, and resulted in finding a large cancerous mass situated in the ileum and involving the mesenteric glands. At this point the stenosis of the gut was so marked that it was with difficulty the gas could be pushed through it. As the involvement was extensive, any attempt at resection would have dangerously prolonged the operation without giving the patient the slightest chance of permanent relief. It was therefore decided to perform a simple lateral anastomosis without resection. Ten inches of the ileum on each side of the stricture were stripped of their contents, and a ligature of soft rubber tubing passed through the mesentery, and tied around the gut at each end to prevent the regurgitation of the intestinal fluids. The field of operation was then protected by packing carefully with gauze pads. Two openings into the intestine were then made, one upon each side of the stricture, and both about three inches distant. The excluded portion of the gut was then thoroughly irrigated through these openings. In making the anastomotic communication I used the solid rubber rings, and, to add further to the security of the parts, "the right-angle continuous suture" was carried entirely around the anastomosis. No irrigation of the abdominal cavity was employed, and the abdomen was closed without drainage. The entire operation lasted twenty-five minutes, and the patient was placed in bed with a good pulse and normal temperature.

After-history. The patient made an uninterrupted recovery, and was discharged from the hospital in twenty-eight days. The temperature was normal throughout her convalescence, except on the day following operation, when it reached 100.4° F.; the pulse on the same day was 100 per minute—the highest number of beats during her stay at the hospital. A hypodermatic injection of morphine and atropine was given immediately after the operation, and repeated on the second and third day as the patient was somewhat restless. The patient for the first three days was nourished with nutrient enemas, and then food was given by the stomach. The bowels were freely moved on the fourth day, following the administration of calomel. There was no tendency to constipation at any time. The rings were passed on the eighteenth day. They were discharged whole, their segments not having become separated.

Immediately after operation the abdominal pain and distension entirely disappeared and remained absent throughout her stay at the hospital. The patient vomited only once, and then on the twelfth day following the administration of salts. At the time of her discharge she had gained decidedly in weight and strength, and was free from all her previous symptoms.

The patient was seen by Dr. Curry on the 24th of last February, three months after the operation. She had improved steadily in health; her bowels had moved naturally every day; there had been no vomiting, and the abdominal pain and distension had not returned. She had gained thirty-five pounds in weight since the operation. On the 10th of February her menses returned, after an absence of four months.

I shall pass at once to the discussion of some points of importance in the technique of lateral anastomosis.

The rings employed. Those used in this operation were made of solid rubber cording, and were devised by Dr. Baldy and myself, and employed by us in our experiments upon dogs. The advantages of these rings have been fully discussed in our paper upon "Experimental Studies in Intestinal Surgery,"* and I shall not refer to them here. Recently I have modified these approximation rings, doing away, I believe, with the only real objection that could be advanced against them, namely, that they allowed too small an opening between the intestines. As I now make them they are oval in shape instead of being round, as they were originally. This is accomplished by means of a strand of catgut fastened across the ring at each end. They have six ligatures attached in place of four; and the segments of which the ring is composed, as well as the threads, are held by means of catgut. With a ring of this kind an anastomotic opening may be made in the intestine, oval in shape, and having the following dimensions: 1¼ inches long, ½ of an inch wide at the centre, and ¼ of an inch at either end.

Additional sutures about the anastomosis. It is now generally held by operators that additional sutures about the seat of operation give greater security to the parts and lessen materially the dangers of leaking. For this purpose I employ the "right-angle continuous suture" of Cushing, using a simple knot for its beginning and ending, as advised by Keen, instead of the original complicated method. This suture may be introduced with great rapidity, and holds the serous surfaces together with accuracy. It is good practice to carry this suture completely around the anastomosis in order to be sure that there will be no leaking at any point.

Cleanliness during the operation. It is impossible to do an ideal aseptic operation where the intestines have been opened. If, however, the parts be kept carefully cleaned there will be practically but little danger of septic infection following. Those of us who do abdominal work must have frequently observed how quickly a blood-clot or other foreign material becomes adherent to the serous surfaces of the intestines, and with what comparative difficulty it is removed. No amount of subsequent irrigation will suffice to detach some of these adherent particles, and it is necessary to pick them off with the fingers. How easily, under these circumstances, a small particle of septic material may be overlooked and become the centre of an infection can be readily understood. To prevent the danger of this source of infection the seat of operation should be frequently douched during the operation with warm sterilized water. This I believe to be a most important point in the technique of these cases. It certainly can do no harm, and it not only keeps the parts clean, but it at the same time lessens the dangers of shock by keeping the intestines warm.

Rapidity in operating. In no field of surgery is time as important a factor for success as in abdominal operations. A surgeon may have the most profound knowledge of the subject, he may deal with all the accidents and complications which may arise with rare judgment and decision, and yet his results will be bad unless his operations are rapidly performed. Good results in abdominal surgery mean rapid work—that is, no shock, no ether-saturation. Park†, in discussing those sources of septic infection not concerned in the wound itself, throws out a most valuable hint bearing upon this subject. He says: "There is good reason to think that chloroform and ether administered for some time may produce such changes in the blood and tissues that vital processes of repair, cell-resistance and chemotaxis may be so far interfered with as to facilitate subsequent infection."

Feeding after operation. The tendency of most surgeons to delay giving food by the mouth, and their reliance upon rectal feeding are, I am convinced, mistakes in the early after-treatment of cases of anastomosis. If we employ in our operations rings which closely approximate the surfaces of the viscera and use additional sutures around the seat of anastomosis there can be no reason to doubt the security of the parts. It seems improbable, under these conditions, that the natural peristaltic action of the intestines

*Proceedings of the County Med. Soc. (Phila.), vol. xii., 1891.

†"Wound infection," etc., *American Journal of the Med. Sciences*, Nov., 1891.

would be sufficient to cause leakage. To throw light upon the question of early feeding after intestinal anastomosis I shall refer to the following cases of gastro-enterostomy. Brookhouse and Taylor ‡ report seven cases, with three recoveries and four deaths. In the cases which recovered, feeding by the mouth was begun on the second day. They considered early feeding as a most important factor in their successful cases. Page‖ reported a series of thirty-six cases with fifteen deaths, which were in most instances due to exhaustion. Beaston* reports two cases of very great interest as bearing upon the necessity for early feeding by the mouth. The first case did well immediately after the operation, but died on the fourth day from asthenia; food and stimulants were not given by the mouth until a few hours before death. The second case was extremely weak and exhausted at the time of operation, but, nevertheless, made a good recovery. This patient was given thirty drops of brandy every hour by the mouth as soon as he came out of ether, and next morning feeding by the stomach was begun. In his remarks upon these cases he says: "Do not place too much reliance upon rectal feeding. Food in small quantities should be given early by the mouth, for in this way only can the tendency of death from asthenia be successfully combated." Jessett,† in speaking of the report of seven cases with two deaths, one of which was on the sixth day and the other on the seventh, both being due to exhaustion, says: "Both would have recovered if fed earlier."

There can be no doubt that exhaustion is the cause of death in a large number of these cases as well as in anastomotic operations in other portions of the intestinal tract, and it is impossible, with rectal feeding alone, to prevent the fatal issue. In those cases which are seen early by the surgeon and are not exhausted the question of early feeding by the mouth is not of first importance. On the other hand, however, cases which are weakened by their disease should be given food and stimulants by the stomach at the earliest possible moment after operation.

Closure of the anastomotic opening. One of the gravest questions in intestinal surgery is the danger of subsequent closure of the artificial communication. This question cannot be settled until we have examined the seat of operation in a large number of cases which have recovered from the operation, but who have died subsequently at various periods of time. Although, as yet, but little has been done in this direction, still there have been a few such examinations made which may be referred to with advantage. Larkin* reported the results of a post-mortem examination upon a patient of his own who died five months after he had performed a gastro-enterostomy for malignant disease. He found upon filling the stomach with water that it passed into the duodenum through the pylorus, but would not pass into the intestine through the artificial communication. After opening the stomach he failed to detect any trace of the anastomosis. He then opened that portion of the jejunum which had been attached to the stomach, and was able, with a fine probe, to pass into the latter. The malignant disease had not involved the seat of operation. Jessett† lost a case on the fifth day after performing a gastro-enterostomy, and found upon post-mortem examination that the artificial opening was quite patent and healthy, and that the bone plates were nearly digested. Sainsbury‡ lost a case on the second day after performing a gastro-enterostomy. The examination of the stomach after death showed a closure of the opening. He says: "The opening into the jejunum was patent when probed by the finger; but that there was an impediment which must have been valve-like is proved by the distended stomach, and the fact that water injected into the stomach before dissection did not escape into the jejunum." In this case rings or plates were not used, the anastomosis being made by a double row of sutures. Beaston‖ reports two cases upon whom he made post-mortem examinations following gastro-enterostomy. One of these patients died on the fourth day following operation. He found the bone plates "greatly acted on by the digestive fluids, being reduced to the thickness of the thumb-nail and broken up into small pieces both in the stomach and bowel. The knots of the uppermost lateral threads were plainly visible owing to the serous surfaces having fallen apart, probably on losing the support of the bone plates." The artificial opening he found would admit the forefinger. The second case died in four weeks after section from acute lung trouble. The artificial opening was found to be oval in shape, with smooth and

‡ *Lond. Lancet*, 1891, vol. i, p. 718.
‖ *Lond. Lancet*, 1889, vol. ii.
* *Lond. Lancet*, 1890, vol. ii, p. 761.
† *Lond. Lancet*, 1890, vol. ii, p. 68.

* *London Lancet*, 1891, vol. ii.
† *London Lancet*, 1890, vol. ii, p. 68.
‡ *London Lancet*, 1891, vol. i, pp. 18-20.
‖ *London Lancet*, 1890, vol. ii, pp. 761-764.

regular borders, and barely admitting the index finger. Keen§, in referring to a case operated upon by Dr. Abbe; in which a lateral anastomosis was made, says: "The opening was large and seemed ample. The patient died some months later, and it was found that the opening had narrowed and contracted so that ultimately there would have been complete obstruction."

In all of the cases just mentioned the incisions into the intestine and stomach were ample, measuring from one inch to one inch and a half in length. With the exception of Dr. Abbe's case the bone plates were used in all of them.

There are several factors concerned in causing a narrowing of the artificial communication following lateral anastomosis. First, the natural tendency of the tissues themselves to retract; second, the contraction of the cicatrix following the healing of the incision; third, the direct union of a part of the incision due to the immediate contact of its edges; and fourth, the opening into the bowel not being sufficiently large or of a proper shape.

The first of these causes cannot be avoided, as contractility and retractility are inherent properties of these structures. To prevent the contraction of the cicatricial tissue, Jessett* and Clarke† advise sewing together by a continuous suture, either of silk or catgut, the cut edges of the serous and mucous coats of the incised viscera. This brings the raw surfaces together, and is followed by direct union—an important fact, as it does away, to a great extent, with the formation of a cicatrix. This method of dealing with the edges of the incision will also prevent the danger of union from direct contact. Direct union of the cut edges of the bowel as a cause of closure of the opening has, I believe, been overlooked by surgeons. Its importance, however, can hardly be questioned. For instance, the case of Larkins, quoted in this paper, goes a long way toward the support of this theory. For how else could we explain the fact that five months after section the opening only admitted a fine probe, unless we admit that in the beginning the edges became in part united. Again, Mr. Larkins performed a jejunostomy upon this very patient nine weeks after the gastro-enterostomy, on account of symptoms of closure of the artificial opening, and she was then kept alive by feeding directly into the jejunum. It is hardly likely that a large incision in the nine weeks could become closed by the retraction of tissues and the contraction of the cicatrix alone. Furthermore, Beaston's two cases both point in the same direction—one dying the fourth day, and the opening only admitting the fore-finger, while the other barely admitted the index finger at the end of one month. In all of these cases long incisions were made, and their rapid narrowing certainly teaches us a lesson. I do not for one moment wish to be understood as stating that direct union of the edges is the only factor in the case, but I do wish to emphasize its importance as a cause. Dr. Keen* has made a suggestion of great practical value in the technique of lateral anastomosis. He advises, instead of making a simple slit, to pinch up the bowel and remove an oval piece. This plan, he believes, would lessen the danger of contraction taking place. While I do not believe that this suggestion would in any way lessen the amount of contraction, I do believe that it would, by lessening the danger of direct union of the cut edges, prevent to a great extent the tendency to closure. Another point of importance is, as suggested by Jessett, to pass the lateral sutures of the ring as close to the edges of the opening as it is consistent with safety. In this way the edges of the incision are kept wide apart. The length of the incision for an anastomosis should be from one and a half to one and three-quarters of an inch. An opening of this size, made oval in shape and having its mucous and serous edges united by a continuous suture, offers, I believe, the best chance of remaining permanently patent.

My experience has been that it is extremely difficult to cut out an oval piece of gut with scissors, as the opening is apt to be irregular or larger than we desire. I saw a well-known operator make this mistake, and he was obliged to narrow the opening by stitching it across with catgut. To overcome this difficulty I have devised a steel punch for the purpose. With this instrument we are able to make the opening of a definite size and its borders clean and sharp—factors of great importance. The incision is oval in shape, one and three-quarters of an inch long, one-half inch at its centre, and one-quarter of an inch across at each end. By having the ends of the opening abrupt instead of tapering, there is less danger of direct union.

§Proceedings Phila. County Med. Soc, 1891, vol. xii, p. 93.

*Brit. Med. Jour., Lond. 1891, vol. i, p. 1377.

†Brit. Med. Jour., Lond, 1891, vol. i, p. 798.

*Proceedings Phila. County Med. Soc., 1891, vol. xii, p. 93.

In conclusion, I desire to call attention to the following points:

1. The necessity of frequently douching the seat of operation with warm sterilized water to prevent the dangers of infection and shock.

2. That rapidity in operating is of great importance for success.

3. That early feeding by the mouth should be employed in all cases, especially in those which are weak and exhausted.

4. That early feeding by the stomach does not add to the dangers of leaking, as the parts are perfectly secure if proper rings and additional sutures are employed.

5. That an important factor in causing subsequent closure of the anastomotic opening is a direct union between the edges of the incision.

6. That the danger of subsequent closure of the artificial communication is materially lessened by using a steel punch in making the opening, by stitching the edges of the serous and mucous coats of the bowel together, by placing the lateral sutures of the ring as close as possible to the margins of the incision, and lastly by making the anastomotic opening sufficient long and of an oval shape.—(*For discussion, see Society Reports.*)

SCROTAL HERNIA REDUCED AFTER THREE WEEKS' MANIPULATIONS.*

By A. B. HIRSH, M. D.

To illustrate the value of massage in this condition I here report the brief notes of a case recently occurring in practice:

A. L., aged forty-seven years, of medium height and sparely built, is predisposed to hernia because of his laborious calling, being a boiler-maker. In 1872, after lifting some weighty object, the gut descended through the right inguinal canal, appearing at the external ring. A proper support was immediately applied. As, however, no pain or inconvenience was felt, he gradually omitted wearing his trusses (of which a variety was used), so that the tumor finally became scrotal; although always reducible. Six years ago he first noticed that he could no longer return the mass, and he therefore left off the truss altogether; but at no time previous to last fall did it give him any concern, as the bowels always acted normally, and he was able to follow his trade without interruption.

Although for some years in attendance on the family, it was not until November last that I first learned of the existence of the hernia, and then he was already laboring under symptoms of obstruction. Prolonged efforts at reduction were of no avail, so that I advised radical measures. The scrotal mass evidently contained omentum as well as gut. He had been for three days without movement from the bowels, although active purgatives had been repeatedly taken, and fecal vomiting had begun some houre before my arrival. To the operation of herniotomy he objected decidedly, insisting on palliative measures alone, so that I was bound, with misgivings to accede. High irrigation by the rectal tube was done, carminatives given, the intestinal tract acted on by active saline and cholagogues, with relief to the fecal vomiting and more urgent symptoms. This purging was followed up daily for nearly a week, ice-bags constantly applied over the tumor, the foot of the bedstead elevated, and a diminished semi-solid diet allowed. Then the services of a masseur were called into requisition, seeking to loosen up any scrotal attachments of the mass, while I saw the patient only at occasional intervals to direct the cause of pressure by the manipulator, and by three weeks' longer efforts the entire mass was returned into the abdominal cavity for the first time in six years.* Every troublesome symptom had disappeared, and, by wearing his ordinary retentive truss he was again able to follow his ordinary occupation.

I wish, in conclusion, to briefly emphasize the facts that in some cases of hernia of long standing, unreduced, it may be presumed that adhesions had formed within the scrotum.

In such instances, where operation is declined, or the condition of the patient prevents it (provided a diagnosis of acute strangulation can be excluded), continued taxis may relax the parts or lengthen or break the adhesions, and allow of a reduction of the abdominal contacts.—(*For discussion, see Society Reports.*)

ARISTOL IN SCROFULOUS RHINITIS OF CHILDREN.

This drug (*Lo Sperimentale*, No. 23, 1891) is recommended as giving excellent results, if insufflated into the nose, in the scrofulous rhinitis of children. It is also of value in chronic eczema when given according to the following formula:

℞ Aristol.....grammes 10.
Lanoline (or) vaseline..... " 50.

*Read before the Philadelphia County Medical Society, March 9, 1892.

*I should state that each daily séance lasted about half an hour.

A SCIENTIFIC CURE FOR HERNIA.*

By BENJAMIN T. SHIMWELL, M. D.,
LECTURER ON SURGERY IN THE MEDICO-CHIRURGICAL COLLEGE.

All methods devised for the radical cure of hernia seek to reach their object by obliteration of the canal, and by this plan to retain the protruding gut. This is the treatment of effect, not of cause.

While fully recognizing the comparative frequency of this trouble, we must not overlook the fact that it is in the minority. As we are all subject to the same exciting causes we should look for some anatomical reason that will explain its occurrence and non-occurrence, and why after operation, where fibrous tissue in apparent quantity existed, return was possible. There must be more than the production, or rather reproduction, of a canal from the abdomen to the scrotum to account for it.

The first thing, then, to consider is not the inguinal rings or canal, but the intestines, the prime factor in the case.

The intestines are not a tube lying perfectly free in the abdominal cavity, to be pushed here or there, making pressure at this or that point. If they were attached but to the pyloric end of the stomach and to the anus, then it could readily be seen how intra-abdominal pressure could possibly rupture any weakened point in the belly wall, with consequent protrusion of the gut. Instead of being so arranged their position and action are limited by the folding around them of the peritoneum forming the mesentery.

Careful examination of the body in the dead-room fixes a normal relative position for this limiting membrane. Its point of attachment to the parietes begins to the left of the second lumbar vertebra. Its insertion then follows a line obliquely downward and to the right, to attach itself on the right iliac fossa. Its average length is eight inches; an increase above this is an abnormal state, and on this increase in length depends the production of hernia. The examination of numbers of bodies has proved beyond cavil that when a normal condition of the mesentery exists, it is impossible to drag the gut into the inguinal or femoral rings.

Is it scientific to say it is chance that prevents the whole human race from having hernia? Also to lay it to the firmness of attachments of the opposing surfaces of the inguinal canal, or the structures that cover a present hernia? The pushing forward of the superimposing layers of the tissue and separation of the obliterated canal speak ill for its preventive power. If they are preventive, then the sudden rupture would give us more serious consequences in primary protrusion than experience shows. The canal does not show the after-conditions that follow usually from tearing, which would be excessively marked here if strong union had taken place. Neither subjective or objective symptoms are present. It is coaptation, not union with firm tissue formation.

It is clear to my mind that the normal length of the mesentery is the preventive factor in the non-production of hernia. If not so, then no one would escape. The exigencies of life and our surrounding conditions are such that all of us at times are subjected to violent strains, giving rise to intra-abdominal pressure sufficient to rupture the internal openings, and to allow the gut to enter the canal.

If these assertions are true, then any operation which has been suggested does not prevent, but modifies. Therefore, any procedure seeking to prevent hernia by obliteration of the sac does not cure. The possibility of return exists.

What is the rational treatment? The opening of the abdomen and shortening of the mesentery. The width of the mesentery does not increase in adult life, but the length is liable to.

The opening of the abdomen and shortening of the mesentery may be objected to on the ground of possible risks. The safety of the operation of abdominal section is settled. The shortening of the mesentery offers no objections. It may be said that the blood-supply of the intestines may be interfered with. Careful experiments show the reverse.

Further, to prove that peritoneal inflammatory changes do not affect the blood-supply is instanced in the omentum after diffuse peritonitis. Operations during the acute stage and post-mortems have shown me conclusively the possibility of contraction occurring without strangulation. In every case of acute peritonitis, unless adhesions have taken place, or, in fact, any case where the omentum has been much handled, we always find it drawn up to its gastro-duodenal attachment as a knotted mass. Still its vitality is maintained. Also the invaginated mesentery into the divided bowel, in the operation of intestinal anastomosis, does not lose its vitality by contraction and imflammation. Here there is not only change by contraction

* Read before the Philadelphia County Medical Society, March 9, 1892.

due to the invagination, but also thickening from the inflammatory products thrown in and about its attachment. That this portion of the mesentery still supplies the bowel with blood is proven by the number of experiments I made, to show the division of the mesentery at the point of invagination caused gangrene. This proves that though changed in its structure pathologically, it does not interfere with its nutritive function as a carrier of blood.

It is understood that the value of an operation lies as much in its freedom from risks as in its ability to maintain its advantages when successful. The freedom from risk has been one of the so-called advantages claimed for the radical cure suggested. Can this be truly said of these methods? It is not always in the province of any operator to say when the operation is finished that he has not divided the spermatic duct. This is not recognized in unilateral operations, providing the other organ and duct is viable, but if not, or if in any subsequent time inflammatory changes take place, it is plainly seen the disadvantages that would arise. There is also the possible atrophy of the testicle from injury to its nerve-supply. Then, again, sharp attacks of peritonitis have occurred with consequent changes. There is law of serous cavities that is definite: "Any inflammation, unless limited by adhesive contact, is diffused over the whole surface." This will hold good here as in an operation done through section.

The largest part of the mesentery is usually confined to about five feet of the bowel included in a space beginning at a point six feet from from the duodenum. If this is above the average length it is apt to hang into the pelvis, and is, in all probability, the portion protruded. It is but reasonable to suppose it is the same loop that is recurrent in its extrusion. There would be no difficulty in locating this portion, as the hernia would be present.

The shortening is done by folding the mesentery over on itself, and holding in this position by interrupted sutures. The intestine can be delivered, folded, sutured, and then replaced, and successive portions so operated upon. This is a step that of necessity requires experience in handling the intestine that is only got by practice. The delicacy of the mesenteric tissue is understood. The union of the attached surfaces is rapid, and having been so shortened, there is no possible relengthening. Experiments, operations, and post-mortems in cases which had peritonitis show persistent shortening of the mesentery, the intestines being drawn nearer the spine.

The operation can be done perfectly aseptic, obviating risks. The bowel is not injured. It is done quickly, closure is made, and the patient out of bed in a few days.—(*For discussion, see Society Reports.*)

A BONE IN THE THROAT: TWO CASES.

By PROF. T. S. WIGHT, M.D.,
BROOKLYN, N. Y.

I wish to make a note of two cases which recently came under my observation: one, of a patient who said she swallowed a bone; and one in which a bone was found in the throat. I am induced to report these cases because the subject is always important, and because the treatment in one differed from that in the other.

Case I. A middle-aged woman of hysterical temperament thought she had swallowed a bone; and felt it in her throat, as she pointed out, near the top of the sternum. Her family physician could not make her believe that the bone was not in her throat, and so she continued to feel it for several days. I saw her, and after the doctor gave me the clinical history, and when I made an examination, I told her that she was mistaken as to the bone being in her throat; and I told her that as the bone went down it scratched her throat, and that she still felt the scratch. After I passed a tube through the œsophagus into the stomach she felt much better, and came to the conclusion that the bone had gone into the stomach. In a few days she entirely recovered from her depressed and anxious state, and was soon as well as ever.

Case II. Recently a very stout gentleman came into my office saying he had a bone in his throat. He had every appearance of being a true sufferer: he had difficulty of breathing and was expectorating somewhat profusely. On inspection I could not see anything in his throat. Then I wound a bandage around my left forefinger, leaving the end of it exposed, and passed it into his throat as far as I could; I thought I could feel a small bone on the left side down as far as my finger reached. The object of the bandage was the protection of the finger against the action of the patient's teeth. Then I passed down a pair of angular throat forceps, and closed them upon what seemed to be the foreign body. The mucous membrane got slightly nipped, and as I withdrew the instrument its jaws tightly held the [illegible]

of bone, which was exactly seven-eighths of an inch in length and about one-twentieth of an inch in diameter. The relief was immediate.

SOCIETY REPORTS.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Meeting, March 9th, 1892.

Dr. Noble read a paper on "A Year's Work in Minor Surgical Gynæcology at the Kensington Hospital for Women," (see next issue of REPORTER.)

This was followed by an article by Dr. Ashton on "A Successful case of Lateral Anastomosis of the Ileum for Malignant Stricture, with a discussion of the Operative Technique." (see p. 565.)

DISCUSSION.

DR. J. M. BARTON: I agree with what Dr. Ashton has said in almost every particular. There are one or two points, however, to to which I would like to call attention.

The Doctor has spoken of the importance of keeping the abdomen open for the shortest possible time during an operation. I fully agree with him in this, and in my own abdominal operations I often sacrifice something to secure brevity of operation.

To make the operation as short as possible it would be very convenient for us to know, before opening the abdomen, exactly what we have to do. With our present knowledge this is impossible, but the history, even now, will often throw some light on the nature and seat of the obstruction.

Under all circumstances, the history in each reported case ought to be carefully recorded, not omitting apparently unimportant details, so that in the future, in similar cases, the diagnosis may be fairly accurate before surgical interference.

The vomiting in this case, unaccompanied by any tenesmus, was rather unusual. Where the obstruction is so low, tenesmus is more apt to be a permanent symptom than vomiting. The rapid emaciation would point to malignant disease. The sweating also would be suggestive of a far advanced maglignant growth or encysted pus.

I fully agree that the feeding should be begun early. In my stomach cases, where the danger of giving food early is greater than in intestinal injuries, I have found that where I was compelleed by the condition of the patient to give food at once, it was well borne. Examining the literature of the subject, I found that the cases that were fed early did not seem to suffer thereby. Where the operation is some distance from the stomach, there is no reason why food that should be absorbed by the stomach should not be used at once.

The Doctor has suggested that the narrowing of the opening may possibly be due to immediate union. In the history of the cases that were examined a few days after operation it does not appear that the opening was materially contracted, while in those examined some months after operation it was found firmly contracted. Where the operation it performed for non-malignant disease, and the patient is expected to live for some time, this contraction of the opening is of the utmost importance. I doubt whether the removal of an oval piece will prevent it. I am not prepared to make any suggestions, but this is one of the difficulties which I fear we shall find trouble in overcoming.

DR. B. T. SHIMWELL: Reference has been made to the use of sutures around the point of anastomosis. I have had considerable experience experimentally with operations on the bowels, and I find that the moment you interfere with the bowel paralysis occurs. In the paralyzed portion of the bowel no gas or fecal matter will enter. I therefore cannot see the necessity for sutures. When perfect coaptation with the ring is made one or two additional sutures is all that is needed, and I cannot understand why we should spend time in putting in these extra sutures, for it requires some time for the bowel to regain its normal tone. If the sutures are well applied and are well tied you have close coaptation, and adhesion is so rapid that there is firm union by the time the tone of the bowel is regained.

DR. JOSEPH HOFFMAN: I have often heard those gentlemen who do anastomosis talk about paralysis of the bowel as a necessary sequela to interference with the intestine. In ordinary abdominal surgery, where adhesions of the bowels are often extensive, we do not get paralysis even when we had to stitch down to the mucous coat. I have seen cases where it was necessary to stitch six or eight inches of the bowel down to the mucous coat, and the patient has recovered without paralysis of the bowel. I should like to know what the interference is which is supposed to cause paralysis of the bowel.

DR. J. PRICE: This matter of paralysis is an interesting one, and I am inclined to

ask the same question that Dr. Hoffman asked. Paresis of the bowel requires something more than local interference. If simple anastomosis with a few sutures is responsible for the paresis it is surprising that we do not have this condition in those extensive lesions of the bowel which we often have to deal with in suppurative and extensive disease. We often have to separate many inches of the bowel, and often have to stitch up lesions, but we do not see the least paresis. There is no perceptible distension. I am therefore surprised to hear gentlemen speak of paresis of the bowel following a few fortifying stitches in resection or in anastomotic work. It never occurred in my work, and I no longer look for it if the cases have been carefully prepared.

There is just one point in connection with anastomosis—not that I wish to criticise enthusiastic investigators or experimenters, but I desire to call attention to one very important point in intestinal surgery. If you can possibly get along without resection or anastomosis, always do so. You will find that men like Martin, Lawson Tait, Bantock, and Thornton make a resection or an anastomosis only exceptionally. Some years ago I did more resection and anastomosis than I do at present. I constantly finish an operation with the bowel with a lumen not larger than a crayon. I do not hesitate to reduce the bowel in its normal axis. I have never had any obstruction follow anastomosis. The results have been most satisfactory, and some of the cases are of three or four years' standing. I might allude to one case: Last summer I operated upon a woman who was said to have rheumatism of the ovary. Her pelvis was simply full. It contained all the pus and viscera that you could get into it. One of the abscesses had perforated, causing a mesentery abscess, which had perforated the bowel at two points, the two openings being about four inches apart. The portion of the bowel between the openings was quite gangrenous. There I was driven to resection and took out six inches of bowel and V-shaped a portion of mesentery. I found that the mesentery was too thick for inversion, and I therefore stitched the bowel carefully, and six inches above the resection made a lateral anastomosis cutting out diamond-shaped pieces of the bowel. This woman never had a bad symptom. She passed flatus in twenty-four hours. There was enormous distension at the band of the resection. She made a perfect recovery, and is now doing her domestic work.

Dr. M. Price: I think the operation of anastomosis can be materially shortened by using Mrs. Supplee's sewing-machine needle, which I have suggested for passing the sutures. In this way the six sutures can be passed in a minute and a half. It obviates the entanglement of the sutures, which are apt to occur when the needles are threaded before the operation, and does away with the time used in threading them during the operation.

I congratulate Dr. Ashton on the recovery of the patient. I think that these are the most serious operations that we are called upon to do. In most cases the disease has already gone so far that resection is out of the question. By this operation he has unquestionably lengthened that woman's days and probably made her death much more comfortable. Some years ago I resected some six inches of the colon for epithelioma. The woman is still perfectly comfortable, and I have no doubt that her life has been prolonged several years. There is no doubt that if the operation is done by a man familiar with the work, 95 per cent. of recoveries can be counted on. Suture of the intestine is one of the safest procedures in surgery.

I think that Dr. Shimwell is probably wrong in regard to paresis. I think we are justified in using every precaution, and the introduction of the ring should be supplemented by a whipped suture and reinforced over all by a Lembert suture. I have no hesitation whatever in saying that the operation is justifiable in cancer and is the only one left for us to do.

Dr. Ashton: While an early exact diagnosis is of importance, yet it is impossible in the large proportion of cases to make it. Even if we do not make an exact diagnosis, the opening of the abdomen causes very little harm if done as an exploratory incision.

In regard to the closure of the opening, I would say that some of these cases were examined as early as three or four days after operation. I cannot understand how an incision which is one and a half inches in length should in three or four days become so small that it would admit only the index finger, unless there had been primary contact and union.

I cannot agree with Dr. Shimwell in reference to intestinal paresis. I have never seen the condition follow even extensive injuries of the intestines. There is more shock to the bowel in severe injuries to the intestines in some pelvic case than in anastomosis. I agree with Dr. Joseph Price that we should not make an anastomosis if we can possibly

avoid it. I never hesitate to narrow the calibre of the bowel provided I do it in the direction of its long axis.

Dr. Shimwell then read a paper entitled, "A Scientific Cure for Hernia." (see p——.)

Dr. Joseph Hoffman: Dr. Shimwell's suggestion can certainly claim the merit of being new, but any procedure which strives to cure hernia by it must fail. If the portion of bowel that presented was always the same, the procedure might be logical. It is however, founded upon a false conception of the condition present. These conditions probably do not obtain in the greatest number of cases, and consequently the methods cannot be really a cure for the condition. Other things besides the bowels may constitute the hernia. In woman, the ovary may be present. The appendix may get into ring, and shortening of the mesentery will hardly cure that. Further than this, the omentum may constitute hernia. This is a prolific cause of hernia. It is probably at the bottom of most hernias primarily, and in many cases it precedes the bowel. We often find nothing in the ring. Strangulation has occurred and the gut slipped back, and the strangulation is back of the ring.

So far as considering shortening of the mesentery as a cure for hernia, we must understand what we mean by cure. Those who have done the most radical operations for hernia are not bold enough to say that they have cured a case—that is to say, so cured it that it will not come back. It cannot be held that such an operation will cure the predisposition for lengthening of the mesentery. So far as shortening of this tissue by inflammation is concerned, that is entirely theoretical. We cannot say that because the mesentery is thickened, it is shortened. The suggestion, while it has apparently a foundation in fact, must be taken entirely as experimental, and experimental in the line that it is not likely to be followed by practical results.

Dr. George E. Shoemaker: It is easy to decry anything which is unusual, yet every method must stand on its own merits. No consideration of this subject is complete which ignores the congenital defects of the ring, since these are at the bottom of many hernias. We find congenital hernia in the very young. Later in life the rings may be too large and weak from congenital defect, although no hernia is present, but a strain is suddenly thrown upon the parts and a hernia is produced. Such a shortening of the mesentery as would draw the intestine away from the abdominal wall is inconceivable under the physical laws which control intra-abdominal pressure; and with the intestine in contact with a weakened point protrusion is always possible.

Dr. T. S. K. Morton: Several years ago, a London surgeon—I think Mr. Morris—wrote quite an elaborate thesis on the subject of the mesentery and its relation to hernia. He apparently demonstrated that in the cases of hernia which he had examined there was distinct lengthening of the mesentery, which seemed to be peculiar to such cases. He found this in the very young, and he urged that the lengthening of the mesentery had a great deal to do with the occurrence of the hernia. I have seen this statement incorporated in one or two textbooks, and it seems remarkable that no one has before this thought of suggesting the operation of doubling the mesentery on itself to prevent the occurrence of hernia. I understand that Dr. Shimwell has done this operation upon animals with satisfactory results.

In this connection the recent suggestion of Mr. Tait in regard to treatment of hernia by abdominal section comes up with special force. If, as Mr. Tait tells us, it is exceedingly easy to draw the hernia back even when tightly strangulated, and if, at the same time we can shorten the mesentery and cure the hernia, and also deal with any prolapsed omentum, it would be a distinct advance in surgery. The method is not applicable to all cases of hernia. If the operation has any field it is in inguinal, and especially in femoral hernia. Dr. Shimwell has thrown out a very valuable suggestion, and I should hesitate very much to condemn the method until I had heard more about it.

Dr. Shimwell: I did not attempt to apply this method to all hernias. I think that any case in which the hernia can be maintained by a truss should not be operated upon. The method was suggested for those cases in which a radical cure was indicated. The method, of course, is applicable only to intestinal hernia. When we find omentum in the sac we do not hesitate to remove it. In peritonitis the omentum is contracted, and is found high up in the peritoneal cavity, and is of no use. The occurrence of congenital hernia is no objection to the method. The difficulty may not be originally in the canal, but the lengthened mesentery may permit the bowel to so press upon the canal as to weaken it. It seems folly to tinker with the canal and not try to remove the cause.

Dr. A. Hirsh read a paper on "The Reduction of Scrotal Hernia After Three Weeks Manifestations." (See page 570.)

Dr. Charles P. Noble: Last year I saw, in consultation with Dr. VanBuskirk, a woman who had fecal vomiting. She had a femoral hernia which had been strangulated for four days; she also had chronic bronchitis, and had a large goitre. Efforts at taxis had been made repeatedly without success. Operation was advised, but in view of the duration of the strangulation and the presence of bronchitis and goitre, the prognosis was unfavorable, and the family declined operation. The hernia remained down some days longer and then went up of itself, and the bowels moved, and apparently the woman was going to get well, but the prolonged obstruction had produced so much asthenia that she died of pneumonia. An interesting point is the length of time the bowel was down and then returned spontaneously.

Dr. M. Price: I admire Dr. Hirsh's confidence and energy, but I do not admire the treatment. The other night I was called to Trenton, N. J., to operate on a gentleman who had been treated for four days by a homœopath for stomach trouble, and was vomiting feces. Another physician being called found an inguinal hernia and telegraphed for me; I immediately etherized the patient and cut down upon the hernia, which was not even discolored. It was down in the scrotum; it had been there for months. It was not strangulated, although tightly held at the inguinal ring. A mass of hardened feces in the bowel was the cause of obstruction; there were no adhesions anywhere. I am confident that Dr. Hirsh had an obstructed but not a strangulated bowel. Most cases of strangulated hernia end in death no matter what procedure is adopted; I have never seen a case where four or five inches of the bowel were gangrenous, recover. Obstructed or incarcerated bowel is really the condition which is reported hernia.

The idea that a hernia can be easily reduced through the median incision is a mistaken one. I operate in the median line for doubtful femoral and inguinal hernia—that is, where there is a little tumor in these situations without evidences of incarceration. In such cases I have never been able to reduce the hernia from the inside; I have had to cut down over the tumor. In doing that, you have an excellent chance for making a radical cure. I have operated on a number of cases in this way, and there has been no return of the hernia.

Dr. Joseph Hoffman: Some years ago I had a case of inguinal umbilical hernia in an old lady, who had been seen by probably a dozen men; I was called in, and I massaged that hernia for four days, and I thought I had cured it. In two or three days I was called, and found that the patient was vomiting fecal matter; the trouble was that the hernia had returned *en masse*. This case shows the danger of attempting to cure strangulated hernia by manipulation. We may reduce the hernia without relieving the obstruction. Where the hernia has lasted for any length of time it is not safe to try to reduce it. Some two months ago I had a case where. if I had attempted to withdraw the hernia, I should have drawn back first a strangulated bowel nearly gangrenous with two inches of gangrenous omentum and two or three ounces of gangrenous fluid.

Dr. Hirsh: I should not advocate massage as a universal remedy in recent or old hernia. In this case it was applied because the family refused more radical procedures. The hernia having remained in the scrotum for six years, it is certainly fair to assume adhesions had formed, and the fact that three weeks were required in separating the strictures and in returning the mass makes one believe that there must have been adhesions to stretch. I was very careful to mention that it was an obstructed bowel, and not that actual strangulation had taken place.

TENDON GRAFTS INTRODUCED BETWEEN THE WIDELY SEPARATED ENDS OF DIVIDED TENDONS.

Dr. Rochet (*Gaz. hebdom. de méd. et de chir.*, June 20, 1891) obtained a very happy result in a case in which the ends of divided tendons of the superficial and deep flexors of the index fingers could not by any means be brought within two centimetres of each other. The proximal and distal ends were exposed in the usual manner. An incision was then made on the palmar surface of the finger at the joint of the phalanges, where the tendon of the profundus passes between the two lips of the tendon of the sublimis, and the tendon of the profundus was divided at this point. The portion of the tendon thus cut off was drawn out of its sheath, its upper end sutured to the proximal portions of the tendons of the sublimis and profundus, its lower end to the distal portion of the tendon of the sublimis. The proximal end of the small portion of deep flexor tendon which remained between the point where it pierces the sublimis and its insertion was then sutured to the lateral lips of the sublimis tendon. The patient recovered with good use of the finger.—*N. Y. Med. Jour.*

SELECTED FORMULÆ.

PILL FOR INTESTINAL ANTISEPIS.

℞
Creolin.....grammes 12.
Alcohol. dilut.,
Pulv. tragacanth.....āā " 2.
Succ. glycyrrh.,
Pulv. glycyrrh.....āā " 24.
M. et ft. pil. no. cc. Two pills at a dose two or three times a day.

From *Petit Formulaire des Antiseptiques*, par L. A. Adrian.—*Le Progrès Médical.*

PHOSPHORUS IN RACHITIS.

Mettenheimer proposes the following formula, which he considers superior to that of Kassowitz (phosphorus, 1 ctgr. in 100 gm. of almond oil):

℞
Phosphorus.....ctgr. 0.01.
Ol. amygd. dulc.....gm. 0.30.
Pulv. sacch. alb.,
Pulv. gummi arab.....āā gm. 0.15.
Aq. dest.....“ 0.40.
M. Sig. Teaspoonful at dose.

—*Nouveaux Remèdes.*

ABSORBENT POWDER.

℞
Salicylic acid.....ʒ i.
Starch.....ʒ ii.
Talc.....ʒ i.
S. To dust on the parts of the body which are affected in the night sweats of phthisis.

—*Union Médical.*

PILL ANTECIBUM.

This is a pill of the French Codex prepared as follows:

℞
Pulv. aloes (Cape).....ʒ ijss.
Ext. cort. cinchonæ.....gr. lxxv.
Pulv. canellæ.....ʒ ss.
Syr. absinth.....gs. xiv.
M. Ft. pil. no. 100.

DANDRUFF.

The following pomade is recommended in the treatment of dandruff:

℞
Acidi salicylici.....ʒ ss.
Sodii boratis.....grs. xv.
Bals. peruviani.....ɱ xxiv.
Ol. anisi.....ɱ v.
Ol. bergamot.....ɱ xv.
Vaselini.....ʒ iij.
M. et ft. unguentum.

—*Med. Record.*

VOMITING, FROM ANY CAUSE.

℞
Cocaine muriate.....gr. ij.
Aquæ calcis,
Aquæ cinnamon.....āā ʒ j.
M. Sig. Teaspoonful every half to one hour.

TYPHOID FEVER.

℞
Acid carbolic.....ʒ ss.
Chloroform.....ʒ j.
Gum acacia.....ʒ j.
Syrup, q. s.....ʒ iv
M. Sig. Teaspoonful three or four times daily. If there is a tympanitic condition of the bowels it disappears at once.

—*I. J. Bush, M.D., in Med. Ann.*

OBSTINATE CHRONIC SKIN DISEASES.

℞
Acidi chrysophanic.....ʒ j.
Lanoline.....ʒ j.
M. Sig. Apply at night on going to bed, and wash off in the morning.

ANURIA OF SCARLATINAL NEPHRITIS.

Dr. Starr recommends the following mixture:

℞
Ext. jaborandi fid.....grammes 15.
Potass. citrat.....“ 25.
Aquæ dest.....“ 75.
M. Sig. Teaspoonful every four hours.

AGARICIC ACID IN PHTHISICAL NIGHT-SWEATS.

℞
Agaricic acid.....grammes 0.2.
Glycyrrhiza extract.,
Glycyrrhiza powder.....āā q. s.
Sig. Divide into 10 pills. Two pills two hours before bedtime.

—*Merck's Bull.*

CARDIAC TONIC.

Dr. J. O. Hirschfelder, San Francisco, in a clinical lecture recommends the following:

℞
Caffeine,
Benzoate of soda.....āā ʒ i.
Strychnine.....gr. 1-5.
Camphorated water.....ʒ vi.
S. Tablespoonful three times a day.

POST-PARTUM ECLAMPSIA.

Dr. Strisover (*Mediz. Oboz.; Le Bulletin médical*, No. 5, 1892) advises subcutanous injections of the hydrochlorate of pilocarpine in post-partum eclampsia. He has treated ten cases thus, without a single death. He employs the following solution:

℞
Pilocarpine muriate.....cgms. 5.
Water.....gms. 4.
Inject a Pravas syringeful at once.

He concludes as follows:

1. The hydrochlorate of pilocarpine is a certain remedy in eclampsia.

2. Cardiac weakness is no contra-indication to repetition of the injection when the spasms reappear.

3. Abnormal contraction of the pupil indicates that the disease is still at hand and that spasms are imminent.

COD LIVER OIL EMULSION.

℞
Cod liver oil.....fl. oz. 8.
Yolks of two eggs,
Tragacanth in powder.....grains 16.
Tincture of benzoin.....fl. dram 1.
Spirit of chloroform.....fl. drams 4.
Essential oil bitter almond.....minims 8.
Water to make.....fl. oz. 16.

Rub the tragacanth with a small quantity of the oil, then add the egg, and with constant trituration water and oil alternately and the flavoring ingredients until the emulsion is completed. About two fluid ounces of water will be needed.—*Br. and Colonial Druggist.*

REFRIGERANT LANOLINE OINTMENTS.

Unna has found that if lanoline fat and water be mixed in certain proportions the water easily evaporates, thus producing a cooling application:

1. Ointment to be used as a cold cream:

℞
Anhydrous lanoline.....parts 10.
Benzoated lard..... " 20.
Rose water..... " 30.

2. Imitation of Goulard's cerate:

℞
Anhydrous lanoline.....parts 10.
Benzoated lard..... " 20.
Solution subac. of lead..... " 30.

3. Salve for burns:

℞
Anhydrous lanoline.....parts 10.
Benzoated lard..... " 20.
Lime water..... " 30.

4. Refrigerant zinc ointment:

℞
Anhydrous lanoline.....parts 10.
Benzolated zinc ointment..... " 20.
Rose water..... " 30.

—*American Practitioner and News.*

HEADACHE POWDERS.

No. 1.

℞
Acetanilid.....drams 7.
Caffeine.....dram 1.
Sodium bicarbonate.....drams 2.

No. 2.

℞
Phenacetin.....grains 10.
Caffeine.....grain 1.
One dose.

No. 3.

℞
Acetanilid.....grains 3.
Caffeine.....grain 1.
Sodium bromide.....grains 7.
One dose.

No. 4.

℞
Acetanilid.....part 1.
Phenacetin.....parts 2.
Antipyrin..... " 4.
Dose 8-16 grains.

This combination has been found serviceable in specially obstinate cases of neuralgic headache.

Headache Capsules:

℞
Antipyrin.....grains 540.
Caffeine..... " 90.
Extract cannabis indica..... " 16.
Hyoscine hydrobromide..... grain 1.
Make into 30 capsules and give one every 1 to 3 to 5 hours.

Headache Mixture:

℞
Caffeine.....grains 20.
Ammonium carbonate..... " 20.
Elixir guarana.....ounce 1.
One dram every hour until relieved. For neuralgic headaches.

—*Western Druggist.*

LINSEED OIL EMULSION.

℞
Linseed oil.....fl. ounces 15.
Oil wintergreen.....fl. drams 2.
Oil cinnamon.....fl. " 2.
Powd. acacia.....ounces 10.
Water.....fl. ounces 24.
Glycerin.....fl. " 6.
Simple syrup.....fl. " 10.
Dilute hydrocyanic acid.....fl. drams 2½.

PRURITUS ANI.

Dr. Josenh M. Matthews has obtained excellent results from:

℞
Benz. oxide zinc oint.,
Campho phenique.....ää 5 ss.
M. Apply as often as necessary.

The campho-phénique may likewise be used pure, without detriment to skin or mucous membrane.—*Medical Bull.*, Feb., 1892.

FOR BALDNESS.

One of the best combinations in the treatment of baldness consists of:

℞
Pilocarpinæ hydrochlorat.....gr. v.
Otto de rosæ.....m viij.
Olei r smarini.....f 5 iv.
Liniment. cantharid.....f 5 iv.
Glycerini pur.....f 5 j.
Olei amydal. dulcis.....f 5 ij.
Spts. camphoræ.....f 5 iij.
M. S. To be rubbed well into the scalp, night and morning.

—*Whitla.*

COMPOUND ELIXIR OF CHLOROFORM.

The following formula (*The Prescription*, No. 1, 1892) is spoken highly of in cholera morbus and kindred complaints:

℞
Ol. cinnamon.....gtts. x.
Chloroform,
Tinct. opii
Tinct. camphoræ,
Spirit. ammon. aromat.....ää fl. 5 vj.
Spirit. frument.....fl. 5 jss.
One-half to one teaspoonful as a dose.

POWDER FOR CORYZA.

Dr. Capitan offers the following formula:

℞
Salol.....grammes 1.
Salicylic acid..... " 20.
Tannic acid..... " 10.
Boracic acid (pulv.)..... " 4.
M.

At the beginning of the trouble a pinch of this powder is to be strongly drawn into each nostril, and the treatment should be given every hour for half a day.—*Bull. Pharmacy.*

ALLINGHAM'S OINTMENT FOR HÆMORRHOIDS.

℞
Bismuth. subnit.....5 j.
Hydrarg. chlor. mit.....5 ij.
Morphinæ.....gr. iij.
Glycerini.....5 ij.
Vaselini.....5 j.
M. Sig. Use in pile-pipe.

INDIGO AS AN EMMENAGOGUE.

Dr. Jones (*Le Bulletin Médical*, No. 82, 1891) has used indigo successfully in thirteen cases as an emmenagogue. He uses the following formula:

℞
Pulv. indigo.....grammes 8.
Bismuth. subnitrat..... " 2.
One-half teaspoonful three times a day for four weeks.

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LEADING ARTICLE.

TYPHUS FEVER IN NEW YORK AND NORTH BROTHER ISLAND.

The typhus "scare" is by no means over in New York. New cases from entirely unsuspected quarters are continually cropping out, and North Brother Island is teeming with patients. The New York Board of Health has been laboring indefatigably, and the zeal of Dr. Edson cannot be too highly spoken of.

It is an open war between the deadly germ of typhus and scientific health regulations, and the result, merely from a scientific point of view, is of vast interest to the profession.

What is giving the New York Board of Health as much trouble at present as the typhus itself, is the untrustworthiness of many of its employes. The recent exposures of the *New York World*, regarding the utter lack of systematized work or precautions at North Brother Island, which accusations have been in the most part acknowledged by the physicians in charge and abundantly confirmed by the sworn statements of many nurses and attendants, are truly startling. Even when allowing liberally for the heightened coloring usually placed upon such reports by the modern newspaper reporter, there is, nevertheless, no getting around facts.

On the night the *World* reporters visited the Island, it is stated that one nurse had charge of 32 cases of typhus, and was unassisted, and that he was compelled to assist in the removal of the two patients who died during the night and was compelled to be absent from his patients for two or three hours. It is also claimed that his only instructions were a supply of stimulants, opiates and straps to be used at his own discretion. The straps were for delirious patients. True also that ward after ward was visited without finding any attendant or nurse.

But worse than this, all the attendants take their meals at one table in the same dining-room. Here measles, smallpox and scarlet fever nurses sit side by side with the typhus nurses. The regulation of wearing

gowns in the wards and removing them at meals has not been strictly enforced, and many nurses have come direct from their infected wards without change of clothing and mingled with the attendants of the other wards of diphtheria, measles, etc. Not even the washing of hands is required.

Another flagrant fault is that the diagnosing of suspected cases of typhus among the quarantined patients is largely left to an unqualified attendant, who merely takes temperatures, and only reports very high ones. The fact that typhus may exist for some time with a temperature of not over 100° reveals the possibility of the *World's* accusation as to several cases of typhus among the quarantined patients not having been discovered for 12 to 72 hours, being true.

These are only a few of the charges made against the management of North Brother Island, and which when the light of searching inquiry is turned upon them we surely trust will either be disproved or else speedily remedied if true.

In the enforcement of public health by the isolation of infectious diseases and quarantine, the authorities need the active assistance of the public, and to gain their assistance must first win their confidence, and the exposure of such conditions as have been reported to have been found on North Brother Island, can surely only win distrust and fear.

Who among the laity, aye, or even among the profession itself, would not hide their sick rather than to see them ruthlessly taken to a pest house, where they believe they will be exposed to infection from other diseases, illy cared for, and perhaps strapped to their mattressless cots while suffering with thirst or even dying? Humanity itself cries out against such a course.

The enforcement of Health Regulations at best would seem cruel to the uneducated public, and they should at least know that these stringent measures only mean greater care and comfort to the patients than that which they could possibly receive at home.

It is to be regretted that the investigations of the *N. Y. World* could not have been made by the proper authorities, and the faults prevented rather than discovered and checked; but for some unaccountable reason this is seldom done, and nothing remains but public exposure.

In conclusion we would say that we sympathize most heartily with the physicians of the New York Board of Health, and fully appreciate the difficulties which beset them, but at the same time we must commend most highly the unsensational, reserved and fair method with which our esteemed lay contemporary, the *N. Y. World*, has done its work; and, as has been said, we trust soon to learn that the serious faults now existing at the North Brother Island will be entirely remedied.

OBITUARY.

DR. D. HAYES AGNEW.

Dr. D. Hayes Agnew died at his residence in Philadelphia, on March 22d, after a brief illness.

Dr. Agnew was born in Lancaster county, Pennsylvania, in the year 1818, and received his early education at the Moscow Academy, in Chester county, at Jefferson College, Cannonsburg, Penna., and Newark College, Newark, Delaware. He received his medical education at the University of Pennsylvania and graduated in 1838. After receiving his medical degree he began the practice of his profession in Lancaster county, but after a short time he withdrew from the practice of medicine and engaged in the iron business. This venture proving unsuccessful he returned to Philadelphia and here resumed the practice of medicine, and at the same time began to teach anatomy at the Philadelphia School of Anatomy, on Chant street. It was here that he showed his great ability as a teacher, as was evident by the large classes of student which were drawn to his lectures and demonstrations from the University and Jefferson Medical Schools.

He was appointed Surgeon to the Philadelphia Hospital in 1854; Demonstrator of Anatomy and Lecturer upon Clinical Surgery in the University of Pennsylvania, in 1863 Professor of Operative Surgery in the same institution, in 1870; and in 1871 was elected to the position of Professor of Principles and Practice of Surgery in the University of Pennsylvania, which position he held until 1889.

Dr. Agnew laid the foundation of his great reputation as a teacher of anatomy in the Chant Street School, and it was here that he trained himself as a practical anatomist; a training which fitted him to conduct in a most brilliant and successful manner the extensive surgical practice which afterwards fell to his lot.

Dr. Agnew also served as Surgeon to the Wills' Eye Hospital, the Orthopædic Hospital, the Pennsylvania Hospital, and as Honorary Surgeon to the Presbyterian Hospital.

Dr. Agnew's great work upon Surgery, the preparation which occupied some of the busiest years of his life, remains as a monument to his industry and acuteness as a clinical observer.

As a teacher of anatomy and surgery Dr. Agnew was noted for the clearness of his teaching, and those of us who had the fortune to attend his lectures can recall with pleasure his clear and forcible exposition of the subjects which he treated, and this was nowhere better shown than in his lectures upon hernia, fractures and dislocations.

As an operator he was most graceful and skilful, having the rare faculty of using either hand with equal facility; the writer has frequently seen him shift his knife from the right to the left hand in the operation of lithotomy. It would be impossible to note the many operations in which his skill as an operator was demonstrated, but it has always seemed to us that in no operations was his delicacy of manipulation more clearly shown than in the removals of tumors from the neck and in the ligation of arteries in their continuity. As a diagnostician he possessed rare ability, the accuracy of his power in this respect in the diagnosis of abdominal disorders being most remarkable.

That all important attribute of a surgeon, good judgment, he possessed in an extraordinary degree, and it was this characteristic combined with his personal attributes which made him so popular as a consultant.

He possessed a personality which was characterized by dignity, honesty and straightforwardness, and all who came in contact with him were impressed with his Christian character and kindly disposition.

No member of the profession was dearer to his professional brethren, no one was more loyal to their interests than Dr. Agnew, who lived and died possessing their universal respect and admiration.

Twice in life we are proud of our years—in early youth and extreme age.

BOOK REVIEWS.

TRAITÉ DE MÉDECINE: *Publié sous la direction de* MM. CHARCOT, BOUCHARD *et* BRISSAUD. *T. 1, Paris. G. Masson, 1891.*

The first volume of the Treatise on Medicine published under the gereral direction of Professors Charcot and Bouchard, and edited by Professor Brissaud, includes the infectious diseases, the natural history of the microbes, and their relations to disease, prophylaxis and treatment.

We hardly have realized yet, so rapidly has the microbian theory grown to be part of our mental equipment, a thing assumed and accepted, how recent its beginnings are, until such a work as this imposing volume reminds us of it and recalls how it was only yesterday, so to speak, that we discussed and doubted, while to-day the world of science has accepted it in its general outlines, and but waits while the empty spaces are filled in hour by hour with the details.

The historical review with which M. Charcot opens the Treatise shows how the seed was planted when Pasteur, in 1857, submitted his memoir on lactic fermentation to the Academie des Sciences of Paris, completing the demonstration for which the work of Billing and Liebig had prepared the ground.

In the paper the great French student announced clearly the principle of the action of ferments: "Fermentation is the correlation of the life, of the organization of the cells, not of their death or putrefaction," and at the same time created the method of successive cultures which allows us to isolate, to evolve these microscopic creatures in inert media. Chauveau, ten years after, studying vaccinia, variola and sheep-pox, found that their active principles were the corpuscular elements which remained on his filters, not the liquid which passed them, and predicted the course which the work of the future would take. Then followed Pasteur's discoveries in anthrax, and the studies of Koch and Klein. It is within the last five years that a partial distinction has been established between toxic and vaccinating substances, a distinction to-day sufficiently firmly settled.

The life history in general of the microbe is next taken up, and this is followed by a remarkably clear and interesting chapter on the etiology of bacterial diseases, including the homes of the germs in the earth, air, and water, in different fluids, animals and vegetables, and how they penetrate the human economy, reviewing in turn the modes of contagion and inoculation, the virulence of

secretions and excretions, the shares taken by food, drink, environment, heredity, age, sex, race, temperament, cold, heat, occupation, auto-intoxication and secondary infection.

Next the author proceeds to the symptoms of infection, the mechanism, the general pathological anatomy, and the manner of recovery or death.

While every portion of the immense field suggested by this synopsis could not possibly be covered in a single chapter, since almost any one of the subjects might well claim a volume, yet nothing has been slighted, and still more noticeable is the constancy with which the authors have kept before them the central principle announced in the preface—"Begin wherever you can from the clinic, but return always to the clinic"—a principle not always kept before the bacteriologist.

Where the facts are well recognized they are stated succinctly, perhaps the chief authorities are given (with a slight preference, naturally enough, in favor of the French ones), their experiments and the reasoning from them briefly detailed—and the application to clinical uses and studies at once made. If the matter is too uncertain to be of clinical service, or altogether doubtful, as for instance the counter-influence attributed to bacterium termo in tubercular disease, it is dismissed with the shortest mention. A part worth the study of the "practical man" who despises laboratory work is that on immunity from infection, natural, as in the resistance of the carnivora to tubercular disease, or acquired, as in the process of vaccination. No intelligent thoughtful man could read it, whatever his views of "pure science" and not see how vast the field it opens, how entirely practical the conclusions, and how stimulating to the scientific imagination the vista of future possibilities.

The first division of the book ends with a summary of the general indications for treatment in disease of bacterial origin, which the studies of the modes of entrance, life, action and death or removal of the microbe suggests: "In the course of bacterial affections it is necessary to act upon the *kidney*, which eliminates germs and toxic principles; *diuresis* is of service in this direction, as the study of the urinary crisis proves. It is necessary to act upon the *liver*, which destroys, retains or transforms part of the poisons. To this end we must strive against *hyperpyrexia*, because among other evils, suppressing or lessening the glycogen of the hepatic gland, it thereby annuls the functions of this organ. *Nourishment*, even excessive feeding will favor this action of the liver-cell and will give to the organism new energy for the struggle against the parasites, and resistance to their attacks * * * * * *Oxygen* aids combustion: the more certain toxic principles are oxidized, the less harmful they become. *Pure air*, frequently renewed and the various nervous stimulants should be used to sustain and excite the forces of the patient. Its good influence upon tuberculous sufferers is well known."

Nutriment in the diatheses and in disease is next treated, and obesity is considered at some length, with a discreet review of the numerous "cures," ending with this Gallic conclusion—"The obese patients from whom the readiest evidence to our prescriptions is obtained * * are * * * * women whose personal attractiveness is at stake, above all a widow desirous of still charming."

The article on diabetes has a particularly good history of the innumerable drugs at various times recommended in this affection, but some for good reasons not of service, some of unaccountable usefulness. They make a much longer list than the twenty-seven theories of the cause and mechanism of diabetes, which, in 1880, Bouchard stated had been put forth up to that date. Several have been born since. The paper on gout which follows contains no new matter, and is little more than a "précis" of the classical English works on a subject which the English have made peculiarly their own.

In the next section one looks with interest for the newest thought and discovery since its subject "infectious diseases common to man and animals" includes the three maladies, anthrax, glanders, and rabies, from which the science of bacteriology has learned most of its lessons. M. Roger has accordingly given a large share of his attention to these, which may be called the prototypes of the maladies which we bear in common with the beasts, but our debt to the comparative pathology of tetanus and tuberculosis is scarcely less, and these are studied at length too, although the author, holding only to demonstrated facts, concludes that but five affections are contracted purely from animals—vaccinia, anthrax, glanders, rabies, and trichinosis. Others are produced in man and animal by the same pathogenic agent, but contagion, while it may occur, is not a necessity. Such, among others, are tuberculosis, tetanus, and actinomycosis. A separate section is given to typhoid fever, and then come the infectious diseases whose pathogenic agents have either not been isolated like grippe and dengue, or not proven, like mala-

rial fever and yellow fever. M. Roger gives in detail the successive steps in the recognition of the bacillus anthracis from Rayer's description, in 1850, of "small filiform bodies in the blood [in anthrax] of about double the length of a red corpuscle," through the work of Delafond, Davaine, and others, to its completion by Koch and Pasteur in 1876–77—the first clearly proved bacterial disease. The rest of the story every one knows, and knows too that we have not learned much from all this labor—the relative proportions are not unfairly shown in the distribution of matter in the article—thirty-eight pages of history and pathology, two pages of treatment. It would be unjust not to add that we have gained a much more important knowledge—that of prevention.

Perhaps to this country the practical value of the next subject, glanders, is greater than that of the studies of anthrax, for while the latter is an exceptional disease on this continent, the former is unhappily common in its equine form—so common that probably a veterinarian in active practice in Philadelphia could point out a dozen cases any day. Considering its easy experimental transmissibility, it is curious that the clinician sees it so rarely in the human subject. But its frequency and virulence among horses is enough to render its study of the greatest economic importance. M. Roger does not display quite the same fairness here which we noted above, for he speaks as if the final discovery of the bacillus of glanders were due to his countrymen, Bouchard, Charrin, and Capitan, though the credit incontestably belongs to Loeffler and Schutz, and it is to the former of these that we owe the greater part of our knowledge of the whole history of this bacillus.

The difficulty of diagnosis is strongly insisted upon, but scarcely enough stress is laid on the ease of proof by test-inoculations producing characteristic lesions, notably a peculiar orchitis in guinea-pigs. It would be well could our own state lay to heart the strong expressions of the writer on the prophylaxis and sanitary policing of the disease, since we are really without a law on the subject.

Rabies is a disease in whose study the French have an incontested pre-eminence. The article on it here has made good use of the vast material offered by the Pasteur Institute. The first human patient whom Pasteur treated was a lad, Joseph Meister, who had received so many and such severe bites that his death seemed certain. At the time of writing, six years after the inoculation, his health was still perfect. The utility of the treatment has since been demonstrated in more than 8,000 patients treated at Paris, a number which may be doubled by adding those treated at the Pasteur Institutes of other countries.

In tuberculosis, too, a large share of the honor must fall to French observers, for although the extraordinary completeness of Koch's work is shown by the fact that no important addition has been made to his statements published in 1882 and 1884, it was Laennec who earliest insisted upon the "unity of phthisis," a theory to which Virchow and Niemeyer opposed all the force of their convictions and teaching.

A conservative opinion of a very moderate kind is expressed as to the possible value of "tuberculin":—"Its application to man was made in too hasty a fashion. It must go back to the laboratory from which it should never have emerged. But while they must still remain in the field of experiment, the importance of Koch's researches cannot be denied: the curious properties of the lymph, its action upon the tubercles, the changes which it brings about in their surroundings, are all facts of great interest."

Professor Chantemesse has made a singularly interesting contribution to the volume in his article on typhoid fever. The definition with which it opens may be quoted, both to show how far from the cut-and-dried style of the text-book is the author's manner of treating his subject, and as an example of the modern attitude from which the whole matter is regarded:—"Typhoid fever is a general disease, the result of the reaction of the economy against the invasion of the typhoid bacillus. This definition rests upon the symptoms and ætiology. It leaves out of the question the pathological anatomy; the intestinal lesion is not the characteristic of the disease; and it implies the idea of generalized infection. A local change, even though the result of the typhoid bacillus, is not sufficient to constitute typhoid fever."

M. Chantemesse mentions the paper of our townsman, Gerhard, as one of the earliest contributions to the separate history of typhoid, confused with the other continued fevers until the clear descriptions of Louis, whose pupil Gerhard had been, but he does not say that this study (*American Jour. of the Medical Sciences*, 1837) was the *first* in any language in which the distinctive differences were fully and sharply made out.

So much of value is contained in the article that it is difficult to select anything to quote. The importance of the studies of the

bacillus which have demonstrated its amazing vitality cannot be overestimated. It flourishes damp or dry, warm or frozen, with or without oxygen, above or below ground, and sunlight and acids appear to be almost the only things which it finds inimical—a hint for treatment. It has been found in the course of the disease in nearly every organ and tissue of the body, and indeed it is probably to its very constant presence in the lungs that the frequency of pulmonary symptoms, bronchitis, congestion, and pneumonia, in the course of the fever is due.

Numerous experiments show that a typhoid case may spread infection by fæcal matters, by the urine, especially if albuminous, and by the sputa. From these facts the means of prophylaxis are deducible.

The influence of drinking-water in the propagation is discussed at length, and many conclusive instances are cited, none more remarkable than the history of the Plymouth epidemic in Pennsylvania. Complete demonstrations are occasionally made by the periodic epidemics which in Paris always follow when for any cause the Seine water has been used for the public supply. This species of "vivisection" of human beings on a vast scale we are familiar with in our own city, and the tax we pay for the knowledge runs annually to a sum of thousands of cases and hundreds of deaths. A valuable practical point is given in disinfection. Richard and Chantemesse repeated with similar results the experiments of Laborius and Pfühl on the value of milk of lime as a disinfectant. "Milk of lime" made with slacked lime in 20-100 solution proved superior to 1-1000 sublimate and to chloride of lime, absolutely putting an end to the growth and life of the bacilli in a few minutes. It possesses the advantage of a nominal price, of being harmless, and of being useful in small quantity, namely, 2 parts to 100 of the fæces or fluids.

The hydropathic therapy of Brand is advised or Bouchard's modifications, which consist in gradually lowering the bath temperature, the routine use of a purgative every third day, and intestinal antisepsis by naphthol and salicylate of bismuth.

The report of the director of the Council of Health is quoted as saying that Brand's treatment "gives a regiment to Germany every three years."

Space fails to consider the remaining articles on influenza, malarial fever, cholera, and yellow fever.

The Frenchman has the art of expressing himself with grace and ease, and none of the authors fail in this respect to reach the national standard. A clear and flowing style is a grace all too uncommon in medical work, but here this excellence combines with simplicity of statement to render the treatise most agreeable reading. A vast amount of information and study, scattered in a thousand journals and pamphlets, has been carefully brought together, and sifted to its useful elements, all views getting a fair representation, while the several distinguished authors add to their values by their own comments and opinions.

Five volumes more are promised at short intervals. It is to be hoped and expected that they will be as good as the first.

LITERARY NOTES.

THE COSMOPOLITAN FOR APRIL.

With the April number, the *Cosmopolitan* completes its twelfth volume in a manner worthy the wide and growing popularity of this magazine. The *Cosmopolitan* is the most superbly illustrated of the monthlies and the pictorial embellishment of the April number is rather above the average. The leading article is on "Genoa—the home of Columbus" written by Murat Halstead who recently visited the city, and illustrated from photographs of all the principal relics of the great navigator which remain in Genoa. "A romance of old shoes," by Miss Elsie Anderson de Wolfe, exhibits the best of the remarkable historical collection at Cluny. "Torpedoes in Coast Defence" is the title of a timely paper by Lieut. A. M. D'Armit of the U. S. Army with photographs and drawings by J. O. Davidson. Wallace Wood treats of "Homes of the Renaissance" in an illustrated paper, and William H. Rideing, is the author of a delightfully written and profusely illustrated article on "The Crew of a Transatlantic Liner." "The Marriage of American Women to German Noblemen" is discussed by Elizabeth Von Wedel, an American who is now the wife of a titled subject of the Kaiser. Other papers are "The Theatre of To-day" by Cora Maynard; "Two Englishmen of Letters," by Brander Matthews; "All Sorts of Conditions of Men" by Edward Everett Hale; "A Living Opal" by Ernest Ingersoll, and "Count Leon Tolstoi," a description of the family life of the great Russian novelist and reformer by a friend of his family. Beside all these attractions the April *Cosmopolitan* is rich in fiction and poetry. "The Rancho of Heavenly Rest" is a vigorous sketch of the southwest, full of action and local color.

Its writer is Forbes Heermans, the author of "Thirteen" and more stories. The illustrations are by Irving R. Wiles. "Princess Ratazánoff" by Cassimer M. Podgorski, is a characteristic tale of Russian Court life in the days of the Czar Paul I. Frederic Remington has illustrated delightfully "The Rustic Dance," a poem by Irving Bacheller, and other verses have been written for this number by George Macdonald, Katherine Lee Bates, Charlotte L. Seaver and Sarah M. B. Platt.

THE LITERARY EDITOR.

The book-reviewer on the staff of a daily newspaper is commonly known as its literary editor, though, as a matter of fact, he is seldom a literary person. Moreover, his duties are determined by the character of the organ he serves: it seems to be worth the while of comparatively few journals in the United States to employ a competent critic solely for the purpose of telling its readers about the contents of new books. In most cases this function is performed perfunctorily by the musical or dramatic editor, who, in turn, is simply an industrious, enthusiastic, or overworked member of the writing force,—perhaps a writer of "editorials," perhaps not. At all events, it is folly to designate him as a literary editor or as a book-reviewer; he edits nothing; he is first and last a drudge, capable, perhaps, of something better than hack-work, but productive of that alone. Then there are first-class journals which send out some of the more important books for review to special writers, and dispose of the great body of new publications in brief paragraphs,—vastly to the disgust of the publishers and authors. Or the various members of the staff are periodically taxed for lengthy notices of the larger works, and the remainder is comprehensively condemned in a sporadic half column or so of "literary notes" by the exchange editor. Finally there is a small group of journals which have found it to their interest or profit to make a "feature" of adequate book-reviews, edited and for the most part written by a single "literary editor." He may, to be sure, do other things,—pass upon contributed verse or manuscript of a general literary character, select the miscellany from magazines, help in the make-up of the Sunday supplement, write the obituaries of distinguished authors, and contribute a fixed or irregular quantity of "editorials" during the week; but these odds and ends are quite by the way; he is first and foremost a reviewer of new books.

The life of such a one, if he would have it so, is the most tranquil in journalism. He will do a large part, and it will be the better part, of his work at home. At the office, only the occasional visit of a passionate poet, manuscript in hand, or of a nervous author eager to indicate the particular merits of his printed work, will disturb the reviewer's communication with current literature. His professional adventures are of the mildest sort.—*Melville Phillips, in April Lippincott's.*

PERISCOPE.

THERAPEUTICS.

THE INDICATIONS FOR QUININE.

Manquat (*Lyon Méd.*, October 25th, 1891) gives a summary of the indications for quinine. In *malaria* it is efficacious in all types, besides being a preventive. Laveran showed that malarial microbes disappear from the blood after quinine has been taken for a certain time, and that the addition of a minute quantity of a weak solution to malarial blood destroys them. He considers the white blood corpuscles are not directly influenced, but enabled more easily to subdue and seize upon the micro-organisms rendered dead or moribund by the drug. If given during or just before the onset of an attack, quinine has no power to check it, while this may be prevented if taken at a sufficient interval beforehand. Baccelli made intravenous injections of 1 g. during the onset, but during the first six hours could recognize no modification in form, number or movement of the microbes. As the largest part of a given dose of quinine is eliminated during the sixth hour after injection, while according to Laveran it is during the onset that the microbes are present in the blood in greatest number, the drug should be given at an interval of about six hours before an expected attack. Quinine should be taken eight hours before shivering appears in quotidian ague, twelve hours before in tertian, and from eighteen to twenty-fours hours beforehand in the quartan variety. To these figures, however, another hour should be added; half an hour on account of the tendency of the onset of successive attacks to be antedated to that extent, and half an hour as allowance for imperfect absorption from impaired gastric action. For the last reason also, and to obviate its rejection, the required quantity should be given in two or three divided doses at half-hour intervals. Two

doses, eight to ten hours before the expected onset of shivering, are almost always effectual. If the result be unsatisfactory, an aperient should be given. Laveran states that no microbes are found in the blood of malarial patients after sulphate of quinine has been taken for eight days in doses of 0.6 to 0.8 g.; but that if after three or four doses it be discontinued, the microbes reappear, and a relapse occurs. Upon this is based his scheme of treatment, namely: During the first three days, 0.8 to 1 g. of hydrochlorate of quinine daily. No quinine during the fourth, fifth, sixth and seventh days. On the eighth, ninth and tenth days, 0.6 to 0.8 g. None from the eleventh to the fourteenth day. On the fifteenth and sixteenth days, 0.6 to 0.8 g. None from the seventeenth to the twentieth day. On the twenty-first and twenty-second days, 0.6 to 0.8 g. In very severe cases recourse should be had to hypodermic or intravenous injection, or injection into the respiratory tract. A gramme of a salt of quinine may be injected subcutaneously, and repeated after a short interval; as a rule, 1½ to 2 g. are sufficient. The injection should be made into the deep subcutaneous tissue to avoid complications. The following formula may be used: ℞ Quin. sulph. 1 g., acid. tart. 0.5 g., aq. destill. 10 g. The addition of a little antipyrin greatly enhances the solubility; 1 g. quin. hydrochlor., with 0.5 g. antipyrin will dissolve in 2 g. of water. When with severe depression there is reason to believe no absorption has taken place, the solution may be injected into the trachea through the crico-thyroid membrane. Baccelli recommends intravenous injection as the most prompt and efficacious method in very grave cases (quin. hydrochlor. 1 g., sodii chlor. 0.75 g., aq. destill. 10 g.). The solution should be injected very slowly into one of the small venous branches at the bend of the arm. In continued malarial fevers quinine must be given in larger doses. Laveran advises 1.5 to 2 g. daily (0.6 morning, 0.8 evening), till fever disappears. This nearly always happens by the second or third day. If fever persists with four days' treatment, it may be assumed to be non-malarial. When the temperature falls, 0.6 to 0.8 g. should be given daily for a short time. In malarial cachexia quinine wine may be taken with meals, but not fasting, or long before food, otherwise gastralgia and dyspepsia ensue. As a preventive, quinine is not effective in smaller doses than 0.25 to 0.30 g. It should be given also in all malarial complications and incidental affections (for example, neuralgia, hæmorrhage, pneumonia). In *typhoid fever* Jaccoud and others restrict its use to certain conditions, namely, non-remission of fever, or very slight morning remission; an uninterrupted series of evening temperatures over 104°; cardiac failure. In *pyæmia* quinine in large doses (1 to 2 g.) is the only remedy which has been in some measure successful; but as it has often failed when given alone, a definite conclusion as to its value cannot yet be drawn. In *acute articular rheumatism* it has been frequently given with success, but is of much less efficacy than the salicylates or antipyrin. In *Ménière's disease* quinine has been given with some success in daily doses of 0.6 to 0.8 g. for one or two weeks, followed by discontinuance for an equal period, and then by renewal of similar treatment. The first doses appear to cause exacerbation of the symptoms, and must be continued for some time before improvement occurs. In *blennorrhagia*, tepid 1 per cent. injections of sulphate of quinine have proved of marked success. Rapid improvement began from the first, and continued till the fifth day, when as a rule only a drop of cloudy discharge appeared. Complete recovery did not, however, ensue for some little time (quin. sulph. 1 g., bism. subnit. 5 g., mucilag. 10 g., glycer. 30 g., aq. destill. cal. 120 g.—Jullien). Regarding the mode of administration of quinine generally, the sulphate, though most often used, is less suitable than the hydrochlorate, which is more soluble, contains more quinia, and is less subject to mould. A solution of 1 in 20 is very useful, but very bitter. On account of this, and its concentration, it is well to prescribe half a tumbler of some drink afterwards; coffee is a good menstruum. For rectal injection, the desired quantity of quinine should be dissolved in 100 to 120 g. of tepid water. If opium is not contra-indicated, the addition of 10 g. of laudanum is useful. The injection should be preceded by a simple enema.—*Brit. Med. Jour.*

TREATMENT OF TYPHOID FEVER.

Dr. Smakowsky (*Ugskrift for Læger*, Nos. 34–35, 1891), in a hospital practice of some 700 cases of typhoid fever, has had opportunity to try all kinds of treatment. He has found Prof. Sacharjin's method of treating the disease with divided doses of calomel the most efficacious. One-half centigramme (one-tenth grain) of calomel, mixed with sugar, is given every hour until copious purgation takes place. Frequent gargling with chlorate of potash will prevent the appearance of stomatitis. In cases where there are already

signs of heart-weakness an infusion of digitalis may precede the calomel treatment. If this treatment be instituted during the first week of the disease one will seldom fail to cut it short, even where it appears with violent symptoms. If it fails in this, the course of the disease will be shorter and the complications milder. This treatment may be repeated, for the second course will sometimes show an improvement which the first will not. In those cases which are not aborted the writer advises the use of the following powder:

℞ Bismuthi subnitrate.....dgm. 10 (grs. jss).
Naphthalin.....cgm. 20 (gr. ⅓).
Quinin sulphat.....dmg. 10 (grs. jss).

Sufficient for one powder. One powder four times a day.

If lung symptoms be present he prescribes:

℞ Spirit. ammoniacat. anisat...gms. 4 (fl. ʒj).
Tinct. eucalypti.....gms 30 (fl. ʒj).
Tinct. menthæ pip.....gtts. x.

Ten drops every second hour.

This is an excellent disinfectant for the mouth. If this method can be instituted before the tenth day, the patients are not weak and debilitated individuals, and where there are no very severe complications the mortality will be exceedingly small. He has observed fourteen cases where the disease was aborted immediately after its beginning by the calomel treatment. He has also found treatment by calomel of service in recurrent and petechial typhoid.—*Cinn. Lancet-Clinic.*

TREATMENT OF EPILEPSY BY THE CONJOINED EMPLOYMENT OF BROMIDE OF POTASSIUM AND OF AN AGENT CAPABLE OF RENDERING THE NERVOUS CENTRES ANÆMIC.

Under this head Poulet, of Planche-les-Mines, writes of a combination of bromide of potassium with calabar bean (*vide Medical Times*, vol. v., p. 610), which has given him success in the treatment of obstinate cases of epilepsy, where the bromides alone had failed. Dose: One tablespoonful, to be increased to a tablespoonful and a half, then two tablespoonfuls, daily. A tablespoonful contains about 57 grains of bromide and about 16 minims of the tincture. The medicine may be given in divided doses instead of one full dose, half a teaspoonful being given at first twice, then three times, then four times daily. The bromides remain the sheet anchor in epilepsy; and by the term "bromides" we have special reference to the bromide of potassium, which alone is truly efficacious. There are, however, a great many epileptics whose attacks are only mitigated or postponed, not completely suppressed, by bromide of potassium, and in such cases, if we associate the bromide with some agent that possesses properties identical with those of the bromide (that is, being capable of anæmiating and decongesting the nerve centres and paralyzing the system of voluntary muscles), we generally obtain results which are perfectly satisfactory in essential epilepsy, and even in partial, or Jacksonian, epilepsy, on condition that, in the latter, we begin by the specific treatment of the determining cause. The substances that have been most successful are calabar bean, picrotoxine, and belladonna. In cardiac epilepsy digitalis must be added. We may indifferently substitute sulphate of eserine for the preparations of calabar bean, sulphate of atropine for those of belladonna, and digitaline for digitalis.—*American Journal of Medical Science*, September, 1891.

MEDICINE.

ALBUMINURIA IN SYPHILIS.

At a meeting of the Russian Syphilidological Society, Dr. Oscar V. Petersen, of St. Petersburg (*Vratch*, No. 21, 1891, p. 511) stated that, while conducting an inquiry into visceral syphilis (*ibid.*, No. 32, 1887), he was struck with the fact (1) that of 88 necropsies of syphilitic bodies, in 34 renal lesions were present; and (2) that of 36 cases in which the fatal issue had been caused by syphilis itself, in 7 the patients had succumbed mainly to chronic nephritis. In view of figures he undertook a systematic examination of the urine in 200 consecutive cases of syphilis, all of which were treated by intramuscular injections of salicylate of mercury, from 0.1 to 0.13 g. once weekly. The urine was examined—invariably after two methods: boiling and nitric acid, and after Esbach's rules—once after the patient's admission and subsequently once every week, usually on the next day after the mercurial injection. The grand total of the analyses amounted to 1,141, of which 436 referred to 78 patients with recent syphilis; 615 to 103 with secondary lesions; and 90 to 19 with late manifestations. In 55 (27.5 per cent.) albuminuria was found; of these, 28 (35.9 per cent.) belonged to the first category; 22 (21.3 per cent.) to the second; and 5 (26.3 per cent.) to the third. Of the 55 cases, in 28 a spurious albuminuria—that is, depending on an accidental admixture of proteids in patients with purulent balanitis, gonorrhœa, prostatitis, etc.—was present, occurring in 18 patients with recent syphilis, seven with secondary, and three with late disease; in 19 (6.8 per cent.)

a transitory one, affecting seven patients of the first group, 11 of the second, and one of the third; and in seven (4.2 per cent.) a genuine permanent or "syphilitic" albuminuria (in three recent cases, four secondary cases, one late). Dr. Petersen's conclusions may be summarized as follows: (1) In all syphilitic cases admitted to hospital the urine should be examined immediately after admission; (2) a genuine albuminuria should be strictly differentiated from a transitory or a spurious variety; (3) syphilitic albuminuria occurs in about 3.8 per cent. of patients with recent syphilis, 3.8 of those with secondary symtoms, and 5.8 of those with late manifestations; (4) in syphilitic patients with nephritis, a mercurial treatment readily gives rise to lesions of the gums, hence whenever sponginess of the gums appears in a syphilitic patient the urine should immediately be examined; (5) the salicylate treatment may sometimes produce transitory albuminuria; such cases, however, are very rare, and the symptoms soon disappear; (6) the elimination of mercury by the kidneys never causes a genuine albuminuria, and generally does not irritate the organs; (7) on the contrary, syphilitic albuminuria is rapidly cured by the use of mercurials.—*Brit. Med. Jour.*

BILATERAL PARALYSIS OF THE SIXTH NERVE.

The minute study of the nerves of the eye has been shown to be of importance from its bearing on the knowledge of the diseases of the central nervous system, and from this point of view at least the rare condition of bilateral paralysis of the external recti muscles of the eye deserves attention. In the large *clinique* of Landolt, M. Dufour has found three examples. In the first case (*A*) a man, aged fifty, had felt the annoyance of diplopia for some time. After careful examination it was found that the only abnormality of the muscles of the eye was a paralysis of the external rectus on both sides, which led to a convergent strabismus of about 35°. In general health he complained only of a want of energy; but it was noticed that both his pupils were very small and reacted very little to light though well to accommodation. The knee-jerks were normal, but he found it difficult to stand with his eyes shut. In the second case (*B*), a woman of fifty-four, Landolt had observed, twelve years before, a paralysis of the third nerve on the left side, which lasted some time; and again, a year later, a paralysis of both the sixth nerves which was only temporary. The same bilateral paralysis reoccurred again after nine years, and this time had lasted apparently unchanged for two years. The retinæ were normal, the pupils insensible to light and acting very little to accommodation. The third case (*C*), a man aged thirty-eight, had a history of good health in all important points. Two years before he had some diplopia for a short time; at present he was suffering from a more serious attack, and had convergent strabismus of 25°. There was paresis of the external recti of both eyes. Vision was good, and the ophthalmoscope showed no abnormality. His general health was poor, and his legs were weak. There was no knee-jerk on either side, and he could not stand with his eyes shut when his heels were brought together. In these three cases the conclusion to which the bilateral paralysis of the sixth nerves points is that there was a central lesion brought about by some chronic cerebro-spinal disease, such as locomotor ataxy. Duchenne had remarked that in the earlier stages of locomotor ataxy some paralyses of the muscles of the eye occurred which were only temporary; and this agreed with the previous history of two of these cases.—*Le Progrès Méd.*, p. 171, September 5, 1891.

DIAGNOSIS OF BLADDER TUMORS.

Dr. Guiard points out some features of hæmaturia which may aid in establishing the diagnosis without digital examination or exploratory incision. Prostatic tumors are scarcely ever accompanied by hæmaturia; renal tumors very generally are. Renal hæmorrhage is quite often only of short duration, small in amount, and recurs at long intervals. At times there is an alternation of clear and bloody urine in the same day, a condition never seen in hæmorrhage due to tumors in the bladder. Renal hæmorrhage gradually diminishes and finally disappears. The opposite is seen in bladder tumors. In washing out the bladder if the last drops consist of pure bright blood, it speaks for tumor of the bladder. Elongated clots, rarely found, are probably formed in the ureter, especially if pains like renal colic have preceded their discovery. Small blood cylinders may be casts of the efferent kidney tubes. Hypogastric palpation alone usually shows nothing, but after the bladder has been emptied Guyon's method of *ballottement* shows the smallest increase in the size of the bladder. By pressing the anterior hand deeply with successive expirations, the extent and thickness of a bladder tumor can be appreciated.—*Archives Générale de Médecine*, October, 1891.

A RARE PARASITE.

With reference to the records of distoma crassum which have been published, we find, on consulting the pamphlet in which Dr. Sinclair published his paper, that the statements there made is that "distoma crassum or Sinense with anchylostoma were present in one case." It would be interesting if Dr. Jacob would describe the specimen, which we understand is now in the Museum of the Leeds Medical School, or state positively which species of distoma, whether crassum or Sinense, Dr. Sinclair alludes to, so that the case may be recorded as an additional instance of the occurrence of one or other of these parasites.—*Brit. Med. Jour.*

ANGINA PECTORIS.

Dr. R. Douglas Powell believes angina pectoris to be the expression of a disturbed innervation of the heart or the vessels associated with more or less intense cardiac distress and pain, and a general prostration of the forces, always producing anxiety and often amounting to a sense of impending death. Considerable stress on habitual high arterial tension as a factor in causation. The affection is not necessarily associated with coronary or other disease of the heart or vessels, although in fatal cases, disease or obstruction of the coronary arteries is the most frequent lesion found, after which, in order of frequency, come fatty degeneration, aortic dilatation, aortic regurgitation, and aneurism. The varieties of the affection are classified as follows: (1.) In its purer forms we observe disturbed innervation of the systemic or pulmonary vessels, causing their spasmodic contraction, and consequently a sudden extra demand on the propelling power of the heart, violent palpitations, or more or less cramp or paralysis ensuing, according to the reserve power and the integrity of that organ.—*Angina pectoris vasomotoria.* (2.) In other cases we have essentially the same mechanism, but with extra demand upon a *diseased* heart.—*Angina pectoris gravior.* (3.) The trouble may commence at the heart through irritation or excitation of the cardiac nerves, or from sudden accession of anemia by the cardiac muscle from coronary disease.—*Primary cardiac angina.* (4.) In certain conditions the blood (often gout), or under certain reflex excitations of the inhibitory nerves always, however, with a degenerate feeble heart in the back-ground. We may observe intermittence in its action prolonged to syncope.—*Syncopal angina.*

Regarding treatment.—In group 1, nitrite of amyl, and still more nitro-glycerine are of great value, and may be combined with nervine tonics or sedatives, iron, zinc, valerian, bromides, etc. In groups 2 and 3, carminative stimulants, or digitalis with nitroglycerine, are recommended, and of all tonics, arsenic, as a rule, is the best.—*American Journal of Medical Science.*

NEUROSES AND NEURO-PSYCHOSES AFTER TRAUMA.

Dr. Schultze presents the following conclusions on this subject: 1. There are various psychoses and neuroses which may be caused by a traumatism, but not a definite disease to which the name, traumatic neuroses, is applicable. 2. The symptoms regarded by Oppenheim as pathognomonic of traumatic neuroses, viz., (*a*) concentric contraction of the visual field for white and for colors, and (*b*) partial or diffuse anæsthesias, are absent in many cases of functional disease after trauma and are not characteristic. 3. The traumatic neuroses are not of rare occurrence, and when developed after trivial injuries are apt to be the result of simulation and aggravation. 4. Positive objective criteria for determining the existence of, or non-existence of simulation are not at present in our possession.—*Volkmann's Vortrage.*

ANÆMIA AND HYPERÆMIA OF THE BRAIN IN THEIR RELATION TO EPILEPSY.

Z. Gutnikow (*Pflüger's Archiv*, xlix, p. 609) has made some experiments on this subject in animals. If an animal be fixed in a radiate direction upon a centrifugal apparatus, according to Salathé, when the head of the animal is at the periphery, on rotating the apparatus hyperæmia of the brain intervenes, but when the head is at the centre and the legs directed towards the periphery of the disc of the apparatus, anæmia of the brain occurs, and in the latter case the animals die more rapidly. Gutnikow, in repeating these experiments, comes to an opposite conclusion. In the case of guinea-pigs rotated on a centrifugal apparatus, he finds that when the head of the animal is directed towards the periphery of the disc, there is cerebral anæmia, and in the opposite case hyperæmia; but this occurred only in animals which survived. Dead guinea-pigs exhibit the phenomena described by Salathé. In the latter case centrifugal force effects its usual action, but in living animals the influence of the vasomotor centre opposes and

even overcomes the action of the centrifugal force. It is well known that excision of a portion of the sciatic nerve in guinea-pigs may be followed by epileptic seizures under certain conditions. In animals already suffering from epilepsy, when they are placed on a centrifugal apparatus and rotated, the epileptic attacks are increased when the head is placed towards the periphery. If the animals were not subject to epileptic attacks then rotation induced such attacks.—*Brit. Med. Jour.*

A CASE OF CHOLEDOCHOTOMY.

Prof. E. Küster reports a case of gall obstruction and jaundice in a woman 48 years old. She had suffered for two years and had been already icteric for months. Küster, from the symptoms, diagnosticated presence of stone in the common duct. The operation showed this diagnosis to be true. He found the gall bladder shrunken, the common duct very much dilated and containing several stones. The common duct was incised and several calculi removed. The wound was closed by a double row of sutures and tamponed with iodoform gauze. With the exception of considerable secondary hæmorrhage the recovery was complete. This is not the first case. Another case is reported by Kümmel; yet another by Courvoisier, in all five cases, so that we have six cases with one death and five recoveries. The application of this operation is entirely circumscribed. The cholecystenterotomy of Winiwarter will not be entirely replaced by this operation. Rehn, of Frankfort-on-Main, had, in a similar case to that reported by Küster, extirpated the gall bladder, after which he found several biliary calculi in the common duct, which he removed by incision. Sutures-recovery. Braun, of Konighberg, reported a case in which he, after separating the adhesions and fixed the shrunken gall bladder against the duodenum, discovered a large sized biliary calculus in the common duct, which by means of incision was removed. The wound was closed by four sutures, tamponed by iodoform gauze, and an uncomplicated recovery ensued. After seven days bile appeared in the intestinal canal.

PROFUSE PURULENT EXPECTORATION.

℞

Ammoniac	grs. 112½.
Aceti. scillæ	ʒ ss. 22ʃ.
Aquæ fœniculi ℥	ʒ 6.
Ext. glycyrrhizæ pur	gr. 150.

M. Sig. Teaspoonful every half hour.

—*Med. Brief.*

SURGERY.

ACUTE GONORRHŒAL CYSTITIS.

Dr. Wickham recommends oil of sandalwood in acute cystitis of blennorrhœal origin, giving sixteen capsules in the twenty-four hours, each containing about six drops (forty ctgr.) of the fluid. This also has a very beneficial action on hæmaturia. Other balsamics have been found only to irritate and aggravate the symptoms in gonorrhœal cystitis. The action upon the mucous membrane of the stomach is a stimulating one, which permits of suitable diet. Horteloup is given credit for the method, which usually renders instillations of nitrate of silver uncalled for.—*Union Médicale*, No. 145, 1891.

DISEASE OF THE BRAIN FOLLOWING A SIMPLE NASAL OPERATION.

The *Journal of Laryngology, Rhinology, and Otology* gives an abstract of an account of an unfortunate accident described by Wagner in the *Münchener medicinische Wochenschrift*. The author performed a galvano-cauterization of the left turbinated body in a patient twenty years of age, on account of headache. There was no special pain and there was no bleeding. The next day the patient had a severe headache, and on the third day there was hæmorrhage from both nasal cavities. This was treated first with ice water, then by tamponing the anterior and posterior nares. In the evening the patient became feverish, and Cheyne-Stokes respiration appeared. The tampons were removed, but the temperature did not fall and the symptoms of a severe affection of the brain appeared. Seven days later death occurred. A post-mortem examination was not allowed. The author concludes that the bleeding could not have been the direct consequence of the operation, because it followed some days afterward, and because parts bled which had not been operated on. He believes that thrombosis of a sinus occurred, which disturbed the circulation in the nose. In some other published case operative treatment of the middle turbinated body was followed by meningeal disease.

SUCCESSFUL TREPHINING FOR BASAL HÆMORRHAGE.

Smart (*British Medical Journal*, No. 1614, p. 1204) has reported the case of a woman, forty-three years old, in which, following a blow upon the right parietal bone, the face became drawn to the right. There was no

ptosis, no ocular deviation; the pupils were of moderate size, nearly equal, and they re acted fairly well to light; but there was left lateral hemianopsia. Motility and sensibility were impaired upon the left side of the body. Coma, with Cheyne-Stokes respiration, developing, two trephine openings were made, one at the seat of injury, the other a little anteriorly and inferiorly. There was free hæmorrhage from the membranes, but no cause for the symptoms was found within reach of the director or finger. By exclusion, the original diagnosis of a right basal lesion appeared to be confirmed. At once, when the dura was incised, the breathing improved, the relief of the pressure and tension being indicated by the occurrence of cerebral hernia. Subsequent improvement was progressive, the hemiplegic symptoms in some degree, however, persisting. A year after the accident there had been no relapse.

OPERATIVE TREATMENT OF HIP DISEASE.

Ferria (*Centralbl. f. Chir.*, No. 6, 1892) describes a method of treating tuberculous disease of the hip which has recently been practised by Caponotto, of Turin, with good results. In the treatment of tuberculosis of this joint by injections of iodoform, the conditions are not so favorable as in disease of some other joints, particularly the knee and wrist. It is not always easy to puncture the hip, and the anatomical conditions of this joint prevent sufficient diffusion of the injected fluid. In order to afford free access of the antituberculous agent to all parts of the diseased hip, Caponotto opens the joint and removes part of the head of the femur. This is done by making an incision about three inches in length, carried from the top of the great trochanter towards the postero-inferior spine of the ilium, and by cutting through the muscles and the capsule on to the head of the femur, about two-thirds of which he then removes with hammer and chisel, whether the bone be diseased or healthy. Sufficient space is thus established between the opposed bones of the joint to permit of removal of diseased synovial membrane, and also of any sequestra or tuberculous deposits in osseous structure, and of subsequent distension of the whole of the diseased articular cavity by injected fluid. After this cavity has been filled with freshly prepared iodoform emulsion, the soft parts are brought together by sutures, and the limb is placed in a good position, though not, unless in very exceptional cases, extended by weights.

SUCCESSFUL TREATMENT OF SUPPURATIVE PHLEBITIS OF THE INTERNAL JUGULAR VEIN AND THE LATERAL SINUS.

Parker (*Liverpool Medico-Chirurgical Journal*, No. 22, p. 44) has recorded the case of a man, twenty-five years of age, who for eleven years following an injury in the region of the left ear, presented symptoms of suppurative otitis media, with perforation of the tympanic membrane. Symptoms of suppurative phlebitis of the lateral sinus and internal jugular vein, with double optic neuritis, developing, an incision was made in the mastoid and intra-auricular regions, and the mastoid process was opened. A clot was found in the facial and jugular veins, extending into the lateral sinus, which was occupied by greenish purulent lymph. Ligatures were applied to the veins on either side of the thrombi, and the intervening portions excised. The lateral sinus was partially scraped. Hæmorrhage was controlled by a plug of antiseptic wax. The symptoms disappeared for two days after the operation; then then the temperature rose to 103°. The wax plug, with some accumulated pus, was removed from the sinus, and the mastoid cells were irrigated. For nearly a week the temperature continued to oscillate between high figures, but finally subsided, the case ultimately progressing to a favorable termination.

A CASE OF FOREIGN BODY IN THE AIR PASSAGES.

Elmer C. R., now æt. fourteen, while tacking up a lambrequin, drew one of several large brass-headed tacks which he was holding in the mouth into the trachea and into the left bronchus, as near as could be determined by external location, about one inch below the bifurcation. The patient was first seen by Dr. Dubois, who found him suffering from spasm of the glottis, dyspnœa, cyanosis, incessant coughing, and a frothy, slightly blood-tinged expectoration. After a few days the irritation passed away and the patient returned to normal health, and the accident was soon forgotten. One year later, and about six months ago, the patient first came to my personal notice. At this time the boy appeared robust and healthy, with, however, the presence of a slight irritative cough. Inspection showed the chest symmetrically developed. Auscultation gave a diminished vesicular murmur over the region of the middle lobe of left lung. Bronchial respiration somewhat marked. Per-

cussion gave dulness and pain over an area two inches in diameter and an inch and-a-half to the left of the median line of the sternum and over the vicinity of the bifurcation of the left bronchus. I gave it as my opinion that the foreign body, whatever it might be, was located in the region outlined above, and the best treatment would be to be conservative and await developments. Aside from the constant dry cough, the patient felt no inconvenience until the morning of August 3d, last, when I was called to see the patient, suffering from violent attack of coughing, accompanied by quite profuse purulent expectoration. During one of these fits of coughing he expectorated the tack that had passed into the bronchus eighteen months before. At this writing the irritation and cough have subsided, and while the respiratory murmur is no quite clear, yet the patient is on the road to recovery. The tack was inclosed in a dark, hard grumous substance, and had probably become encysted, and, in turn, by a suppurative process, had been liberated and expelled by the act of coughing. —*Dr. Wessinger, N. Y. Med. Jour.*

OBSTETRICS.

CHLOROFORM IN OBSTETRICS.

Dr. J. F. Baldwin, of Columbus, Ohio, in a paper read before the Ohio State Medical Society, entered a plea for the more frequent use of chloroform in obstetrics.

His obstetrical triad is as follows:

During the first stage of labor, morphia.

During the second stage of labor, chloroform.

During the third stage of labor, nothing.

SUMMARY.—Chloroform relieves pain.

It shortens labor, usually.

It prevents shock.

Prevents nervous and physical exhaustion.

It reduces the liability to rupture of cervix and perineum.

It does not conduce in any material degree to post-partum hæmorrhage.

It does not affect the fetus.

It is absolutely safe when properly administered.

CONTRAINDICATIONS.—1. Such conditions of labor as lead the obstetrician to believe that he may, at some supreme moment, require all the woman's voluntary efforts to assist him. Such conditions are very rare. 2. Fatty degeneration of the heart; though, if we accept the conclusions of the Hyderabad Commission, even this may not be a contraindication; and the disease is practically never diagnosed except post-mortem.

AMAUROSIS IN THE ALBUMINURIA OF PREGNANCY.

Terrier (*Nouvelles Arch. d'Obstét. et de Gynéc.*, Supplement, September, 1891, p. 385) give brief notes of a case of this kind. The patient was eight months pregnant. Albuminuria set in, and the vision became seriously disturbed. The secretion of urine was greatly diminished, and the general condition was very unfavorable. Twenty ounces of blood were abstracted, and blisters applied to the nape and temples. Compound jalap powder, acetate of potash, and digitalis were administered; the patient was kept on milk diet. On the third day the secretion of urine increased, and the albumen disappeared, but it appears that the patient could not see to read until the sixteenth. Spontaneous labor took place at eight months and a-half. The patient then recovered completely. In this case, even when the symptoms were at their worst, it was not considered advisable to induce premature labor.—*Brit. Med. Jour.*

CUTANEOUS EMPHYSEMA DURING LABOR.

Greslou (*Bull. de la Soc. Obstét. et Gynéc. de Paris*, July, 1891) attended last March, a primipara, aged 24, free from any history of pulmonary disease. The presentation was right posterior occipital, and after a rather long labor the patient was delivered of a male child weighing nearly nine pounds. During the period of expulsion, during a long-sustained effort, the patient felt a crackling sensation in the right cheek, followed by swelling. During the succeeding pains the emphysema visibly increased. It caused great swelling on both sides of the face, but only involved the neck to a trifling extent. The emphysema lasted for two days, little altered, and was accompanied by a cough and slight dyspnœa. Then it rapidly diminished, and disappeared entirely at the end of five or six days. Treatment had been entirely expectant. Greslou notes that Depaul, De-Soyre, and Tarnier have described cases of puerperal emphysema. The complication is rare. It necessarily arises from a rupture of the respiratory tract at some point. If the lies in the larynx or trachea, the escape of air is usually confined to the face and neck, and is not dangerous save in those rare cases where it extends to the trunk. When, however, it is a pulmonary vesicle that has yielded, the complication becomes very serious. The air may escape into the connective tissue of the neck, but it may also fill the intervesicular, interlobar, and subpleural con-

nective tissue, and gravely embarrass the lungs and heart. This accident occurred in a case recorded by Depaul. The forceps was used directly the emphysema was detected, but the patient's condition grew worse, and she died forty-six hours after delivery. In mild cases, where the swelling is limited to the face and the symptom only develops towards the end of the expulsive stage, the forceps is hardly needed, but if there be marked emphysema at any stage the labor must be hastened. After delivery the emphysema usually disappears of itself. Should it invade the trunk and interfere with respiration, a few punctures may be made in the skin in order to allow of the escape of the effused air.—*Brit. Med. Jour.*

PUERPERAL INVERSION OF THE UTERUS.

Puerperal inversion of the uterus may be called immediate when it occurs at the moment of delivery, secondary when it takes place afterward, and chronic when it continues longer than the puerperal condition in which it originated. Statistics show that immediate inversion, though a very rare affection, is more frequent in primiparæ than in multiparæ. It is produced by two pathogenic agents: inertia of the uterus, and pressure from above downward. Adherent placenta is a frequent complication. As soon as the inversion takes place the placenta must be removed, if it has not already been taken away, and efforts made to reduce the tumor. The body of the uterus must be pushed back in such a way that the parts return in a reverse order to that in which they descended, the highest parts being first replaced. The operation may be compared to taxis, although it essentially differs from taxis in that the tumor is usually so large that the pedicle cannot be held by one hand, while the other exerts pressure from below upward upon the uterine mass. Place the hand upon the abdominal wall in such a manner as to fix the infundibulum formed by the inverted uterus, and seize the tumor with the other hand, pressing the fundus with the palm and the sides of the uterus with the fingers. By uniform and energetic pressure from below upward the resistant mass may be pushed back through the cervical ring, while the tumor is kept in place by the hand upon the abdominal wall. Instruments should not be used on account of the danger of perforation. If the operation is unsuccessful, we are compelled to choose between amputating the tumor and allowing things to remain as they are, in the hope that the inversion may become chronic. Prognosis in these cases is so grave, and the condition of the patient so unfavorable, that great boldness is required to undertake a radical operation; nevertheless it has been attempted, and followed in one-tenth of the cases by recovery. It is sometimes rendered imperative by gangrene of the inverted mass. Reports show that there is great danger hæmorrhage may follow section of the uterine and utero-ovarian arteries, and a ligature should, therefore, be placed around a part or the whole of the tumor.—*Journal de Médicine*, January 10, 1892.

GYNÆCOLOGY.

ANTIPYRIN TO DRY UP MILK SECRETION.

Guibert (*Archives de Tocolygie*, 1891) found incidentally that the administration of antipyrin, in doses of thirty grains a day, distinctly diminished milk secretion by the second day. He then tested the drug in nineteen cases. In seven cases the women nursed their children for several days, in the remaining cases not at all. Guibert found that in all cases the milk disappeared in several days.—*Univ. Med. Mag.*

PELVIC INFLAMMATION IN WOMEN:—A PATHOLOGICAL STUDY.

At the recent meeting of the Mississippi Valley Medical Association, at St. Louis, Dr. W. W. Potter, of Buffalo, read a paper entitled Pelvic Inflammation in Women:—A Pathological Study.

The author affirms that pelvic inflammations and their residues constitute about one-third of the diseases the gynæcologist treated, hence the importance of frequent discussions of all moot questions relating to the subject. He briefly reviewed the anatomical relations of the pelvic organs, calling attention to their enormous blood and nerve supply which became both their weakness and their strength. He contrasted the pathology of Bennet (1843) with that of Emmet (1873) and the latter with the teachings of Price, Tait, Hegur and McMurtry of the present age. He referred to the pathological studies of Bernutz and Goupil of thirty years ago, and affirmed that the observations of the present had served to confirm the correctness of those pioneers.

He next asserted that the pathology of to-day had been established by operative surgery which had shown that pelvic inflamma-

tion begins in the tubes or ovaries, and extends to adjacent structures through absorption or by contiguity; that it almost never begins in the cellular tissue, but may be carried there through the tubes and ovaries by infections either specific, puerperal or traumatic. He affirmed that the inflammation was, in most cases, a peritonitis, intra-pelvic or local in character, and not a cellutitis, that para- and peri-metritis were misleading and confusing terms, hence should be dropped, and that the so-called pelvic abscess was a sequence of salpingitis, ovaritis or peritonitis, not a primitive accumulation in the areolar tissue itself.

The tentative management in these cases, rest, counter-irritation, hot sitz baths, vaginal douches and attention to the digestive organs and general health resulted in only temporary improvement, or in cure in a very small percentage. Those reported cured were generally, if the history could be known, subject to repeated relapses and a frequent recurring pelvic peritonitis usually indicated leaky tubes. Electricity, too, had disappointed its most sanguine advocates and need not be considered.

In conclusion, he asserted that if these views be accepted the logical deduction was to watch the early manifestations of the disease carefully, that competent surgical skill be invoked before the damage to important structures became too great to justify the expectation of successful operation.

OBSERVATIONS IN REFERENCE TO THE USE OF ICHTHYOL IN FEMALE DISEASES.

Observations made by Oberth (*Der Frauenarzt, Hft.*, 19, 1891) do not agree with the excellent results reported by Freund. Oberth reports forty-two cases treated with ichthyol. Of these thirty-five were cases of chronic inflammatory swelling of the appendages, and four parametic exudations. His conclusions were that ichthyol does not have a specific effect upon the inflammations about the uterus, nor does it cause resorption of the products of inflammation. He did observe, however, that it quickly diminished the amount of pain. His favorite manner of using the drug is as a five to ten per cent. ichthyol-glycerine on tampons.

TONIC.

℞ Tinct. nucis vomicæ ..... gtt. j.
Acid. hydrochloric. dilut. ..... gtt. ij.
Extract. cascaræ fluid ..... gtt. ij.
Tinct. gentianæ comp. ..... gtt. v.
Aquæ ..... ad f ℥ j.
M. To be given three times a day.

PÆDIATRICS.

ICTERUS IN THE NEW-BORN.

From a pathogenic point of view, two forms of this disease must be distinguished, the acute and the chronic. Cuapf (*Rev. Mens. des Mal. de l'Enf.*, October, 1891,) basing his opinion upon his own observations and also upon the investigations of Silbermann, Naunyn, Minkowsky and Affanassiew, the author rejects the theory of a purely hæmatogenous origin for acute icterus, and believes that in all cases there is some disturbance in the liver itself. The new conditions of vitality, which are created by the establishment of respiration, the changes which take place in the circulation, etc., cause a decided change in the condition of the corpuscles, an excess of pigment in the liver, and then biliary stasis and resorption. With reference to chronic icterus, the researches of Gubler, Trousseau, Schüppel, and the author show that it is sometimes due to congenital faults in the formation of the bile ducts, and that it may also be due to acquired lesions of the hepatic tissue and biliary passages. Such lesions are very frequently the result of syphilitic inheritance.

EXALGIN IN CHOREA.

Löwenthal (*Berl. klin. Woch.*, February 1st, 1892) has treated thirty-five cases of chorea with exalgin, the single dose being 0.2 g., and the daily amount not exceeding 1 g. In some the attack was slight, in others severe; the former recovered quickly, but the latter required a longer time. A good number of the cases came under treatment during the first two or three days of the attack, and they mostly recovered in eight days, while others coming in the second week were ill for five to six weeks. In a few cases the disease had already lasted for some months. The smallest total amount of exalgin used was 2.4 g., the largest 112 g. The drug may thus be continued for months in doses of 0.2 g. It was particularly useful when there was much mental excitement. Among unpleasant effects, nausea was noted once, vomiting four times, and headache twice. Owing to giddiness, it had to be giving up once and arsenic substituted. The chorea then became worse, and the exalgin was again tried with good effect. Jaundice occurred three times. The treatment with exalgin was then omitted and resumed in fourteen days. This is the first time jaundice has been noted after exalgin. In the very severe case of a girl, aged 8, there was

cyanosis of the lips after twenty-six doses. Arsenic was then given, and exalgin resumed in fourteen days without any return of the cyanosis. Exalgin was beneficial in the majority of the cases, but a specific action cannot be attributed to it.—*Brit. Med. Jour.*

THE CEREBRAL ATROPHIES OF CHILDHOOD.

From a review of the clinical types of cerebral atrophy in childhood, of the pathological conditions producing these types, and of the results of surgical treatment by craniectomy, the following conclusions may be drawn: (1) Hemiplegia, sensory defects and imbecility, occurring with or without epilepsy in children, are chronic diseases, incurable by medical treatment. Any means which may be legitmately used to save the individual from a life of invalidism, and to take the burden of care from the family, is to be employed. (2) The pathological conditions producing these symptoms may be either gross defects and atrophies of the brain or an arrest of development in the cerebral cells, without any change apparent to the naked eye. (3) It is at present impossible to determine absolutely the pathological condition present in any given case without an exploratory operation. (4) Such operations are not without danger, but if caution is used in opening the dura, and if the operation is made as short as possible, the dangers are avoided. (5) When manifest atrophies are present the operation will produce no result. When the condition is one of arrested development of cerebral tissue, it may prove of service. When clots, cysts, or tumors are found and removed the chance of recovery is increased. When the skull is markedly microcephalic from early union of the sutures, the increased space given to the brain by the operation seems to stimulate its growth and development. (6) Epileptic attacks are often reduced in frequency and modified in character by craniectomy. When the opening of the skull remains covered only by the soft tissues, it is appears to act as a safety-valve, allowing changes in the intracranial contents to occur without producing pressure on the brain. (7) While hemiplegia, aphasia, athetosis, and sensory defects have been relieved by the operation, it is as yet impossible to predict to what extent imbecility may be relieved. (8) Reports of cases should be made in full, and not within six months of the time of operation, as conclusions connot be trustworthy unless reached by long observation.—*Medical Record*, January 23, 1892.

NODOSE RHEUMATISM IN CHILDREN.

Perret and Diamantberger (*Rev. mens. des Mal. de l'Enfance*, 1891) relate a case of this disease in a girl ten years old. The disease began with pains in the knees and hands when the child was seven years old. Then it attacked the great toe, the radio-carpal and metatarsal articulations. There was also swelling around the three lower cervical vertebræ. Peculiar characteristics were painful paroxysms, with contractures of the muscles contiguous to the diseased joints, and a mitral insufficiency murmur. Nodose rheumatism in children should be distinguished from the same disease in adults by the following peculiarities: many joints are involved in an early period of the disease; there is less centripetal tendency in the evolution of the lesions, the large joints being frequently involved before the fingers, and the exacerbations are of frequent occurrence. During the chronic period deformities are less frequent than with adults, and there is less atrophy. Complications are less frequent; there are no disorders of sensibility, no dystrophy of the nails, no tuberculosis, and rarely any cardiopathies. As to the evolution of the disease, subacuteness is more noticeable at the beginning. The chronic state having been established, there may be improvement and even cure. The ordinarary causes are poverty and dampness, but heredity has no influence. Diamantberger recognizes an affinity between this disease and hysteria, Basedow's epilepsy, idiocy, myxœdema, acromegalia, and Paget's bone disease.

THE VAPOR OF NAPHTHALIN IN THE TREATMENT OF WHOOPING-COUGH.

As a result of considerable successful experience, Chavernac (*Bulletin Gin. de Thèrap.*, 40, liv., 1891, p. 337) recommends fumigation by means of naphthalin in the treatment of whooping-cough. About half an ounce of the drug is, on one or more nights, made to burn in a suitable vessel in the sick room, the windows and doors being tightly closed. The cough at once moderates, the dyspnœa and other symptoms are favorably influenced, and the attack is soon brought to an end. Complications may contra-indicate the employment of the treatment. Thus, individuals suffering with pulmonary tuberculosis cannot bear the treatment.

Green boughs of the eucalyptus tree are recommended to be hung in the room of scarlet fever patients.

HYGIENE.

STEAM AS AN AGENT IN CAUSING THE SPREAD OF DIPHTHERIA.

In a discussion on diphtheria, published in the *British Medical Journal* for September 19, 1891, Dr. Russell cited several instances in which steam had seemed to be an active factor in the propagation of the disease. Hot water and steam from a brewery were introduced into some old cesspools and evidently waked into activity germs which, if undisturbed would have remained dormant. An epidemic of diphtheria soon developed in the vicinity, and was not checked until the steam was turned into other channels, when it quickly ceased. If, as we now believe, the bacillus of diphtheria develops with special rapidity in the presence of warmth and moisture and absence of light, it is not unreasonable to suppose that the introduction of hot water or steam into cesspools or sewers may be a most dangerous procedure. The maintaining of a considerable degree of heat in sewers can certainly not be wise from a hygienic point of view. Yet this condition prevails quite largely in New York, where sewers and water pipes are in many places kept at a continuous high temperature by the close proximity of the pipes of the steam-heating companies. No more favorable medium for the culture of micro-organisms could be found than warm sewage. Given an imperfect trap and a vulnerable mucous membrane, and an attack of diphtheria is almost assured.

DISINFECTION OF DENTAL INSTRUMENTS.

There is no department in surgery, writes Dr. Miller, of Berlin, in which the demand for antiseptic procedure is more urgent than in dentistry, for the reason that all the operations are performed upon septic or infected tissues and there are no means of rendering the territory to be operated upon aseptic except by the use of antiseptics of the highest character. The necessity of absolute cleanliness on the part of the dentist, of his hands as well as his instruments, diapers, drinking glasses, rubber dam, in short, everything which comes in contact with the patient's mouth, is universally recognized, and yet it is not difficult to find persons engaged in the practice of dentistry who neglect this matter to an extent that is revolting to the taste and dangerous to the health.

In regard to the possibility of transmission of disease, such as pyemia or syphilis, by dental instruments, there have been so many cases recorded in dental and medical journals that the matter should be familiar to every practitioner of dentistry. With reference to diapers, Dr. Miller found that boiling in water for ten minutes completely sterilized them, and no development of bacteria could be produced in agar-agar. The rubber dam should be soaked in a 5 per cent. solution of carbolic acid for at least half an hour, or boiled for a few minutes, but preferably a new piece should be used for each case. The ideal antiseptic for instruments is a liquid which acts immediately upon bacteria without in any way injuring the instruments themselves. There is a vast difference between sterilizing liquids and sterilizing solid bodies, and an antiseptic which sterilizes a drop of water almost instaneously may require a quarter of an hour to sterilize a solid body, particularly when it is coated with a layer of dried albuminous material, as dental instruments are liable to be. The length of time necessary to sterilize a body by a chemical agent depends greatly upon the character of the body, as well as upon the character of the matter with which it is coated. Porous bodies, as may be readily understood, are more difficult to sterilize than non-porous ones; also the drier and more insoluble the material with which the body is coated, and the more liable it is to form inert compounds with the antiseptic, the more difficult it will be to sterilize. It is consequently, above all things, desirable to employ the antiseptic in a form in which the infectious matter is soluble, and this in the vast majority of cases is in an aqueous solution. Dr. Miller has performed about a thousand experiments, and gives in a tabular form the results obtained with the most noticeable agents. Of carbolic acid, he says the impression exists amongst a great many that it is but necessary to dip the instrument in the solution for a fraction of a minute in order to render it completely sterile, but thorough sterilization with a 5 per cent. solution cannot be counted upon with moderate certainty in less than an hour, and a large burr, such as is used with the dental engine, after two hours' exposure was still found to contain living germs. Trichlorphenol gave slightly better results. Bichloride of mercury in a 5 per cent. aqueous solution was found to be by far the most prompt in its action of all the substances tested, but its powerful action upon the steel interferes very seriously with its constant use for sterilizing instruments made of this material. Peroxide of hydrogen came next to carbolic acid, but

it was considerably inferior to it. The essential oils utterly failed to produce the desired action. Boiling water, especially when a 2 per cent. solution of carbonate of soda is added, is, in Dr. Miller's opinion far superior to all other means of sterilizing; it will accomplish in two minutes as much as the chemical agents ordinarily used will in half an hour.—*Lancet.*

ADMINISTRATION OF ALCOHOLIC BEVERAGES TO CHILDREN.

The *Journal de la Santé* calls attention to the habit many persons have of giving infants and children alcoholic beverages like whisky, brandy or beer to induce sleep. This practice cannot be too strongly condemned, for aside from the injurious effects of alcoholic drinks upon the child's system, the restlessness can be more effectually controlled by a tepid or warm bath given at bedtime, especially during the period of dentition. When young children are delicate, a few drops of brandy given occasionally in milk, may have a good effect, if the child suffers from digestive trouble. It should be remembered that 15 or 20 drops are ample for a baby and a larger quantity should not be administered without the physician's advice.

TEMPERANCE AND THE LONGEVITY OF CLERGYMEN.

It is satisfactory to know, on the authority of Dr. Drysdale, that the mortality of the clergy of the Established Church of England has fallen greatly since the spread of the temperance movement among them. Whereas between 1861 and 1871 the mortality of the clergy between the ages of twenty-five and forty-five was 5.96 per 1,000, it fell between 1880–82 to 4.64 per 1,000. The question may be raised whether this apparent lessened mortality among the clergymen may not be evidence of the universal fall in the death-rate during recent years, of which the apostles of sanitation claim the credit.—*Hospital Gazette.*

CLEANSING OF THE HANDS AFTER THE USE OF CARBOLIC ACID OR CORROSIVE SUBLIMATE.

Carbolic acid is removed from the hands by bathing them for a sufficient time in alcohol and then anointing them with lanolin. After the use of corrosive sublimate solution the hands should be bathed in a solution of common salt 1 to 50, then washed with soap and water, and finally rubbed with lanolin.

MEDICAL CHEMISTRY.

A SUBSTITUTE FOR GUM ARABIC.

The *Mühlen und Maschinen-Industrie Zeitung* is authority for the statement that a German patent has been issued for a process of manufacture of a substance to take the place of gum arabic. Wheat bran is the substance treated, the process being described as follows: By first washing with water all adhering starch is removed from the bran, whereupon it is boiled with an ammoniated salt solution in order to remove the proteins. After expressing and lixiviating with clear water, there remains a mass of cellular tissue containing metarabin. This cellular tissue is boiled, under pressure, with milk of lime or a one per cent. solution of potassa, then expressed, the liquid neutralized and finally concentrated by evaporation. The resulting mucilage is claimed to possess strongly adhesive properties.

HYDRAZOIC ACID.

Professor Curtius, in the *Berichte der Chemischen Geselschaft*, reports the results of his further examination of the compound N_3C, to which the names of hydrazoic, nitrohydric, and imidazoic acids have been applied by different investigators. Professor Curtius describes his methods of obtaining some of the salts of the acid, upon which investigation can be carried out with less danger than with the material itself. The silver salt N_3Ag may be obtained in colorless crystals by evaporating an ammoniacal solution. It is violently explosive. The mercurious salt N_4Hg is crystalline, and acquires a yellow color on exposure to light. It is less explosive than the silver salt, and on the addition of ammonia is converted into a black, insoluble substance. The lead salt N_6Pb forms colorless crystals, closely resembling lead chloride. It is insoluble in ammonia, and very sparingly soluble in boiling water, and when slightly warmed exploding with great violence. The sodium salt N_3Na is also crystalline. It is feebly alkaline, very soluble in water, insoluble in alcohol and in ether. It does not explode when struck, but only when heated. The ammonium salt N_4H_4 is extremely explosive, and very volatile, but can be crystallized from a solution in boiling alcohol. On the addition of ether to the alcoholic solution, the salt is precipitated in the form of a snow-white crystalline powder. A water solution evaporated in vacuo yields large transparent prisms, which become dull on exposure to the air.

TO DETECT SUGAR IN URINE.

Flint (*Medical News*) describes a simple apparatus for detecting the presence of sugar in the urine, when the results of Fehling's tests are uncertain. A small straight bottle or a small test-tube is fitted with a cork, through which is passed a small tube that reaches nearly to the bottom. The glass tube is bent so that the apparatus will hang over an ordinary test-tube or other convenient vessel. The bottle is completely filled with urine, with which a piece of Fleischmann's yeast, about the size of a pea, has been thoroughly mixed. In putting in the cork it is necessary to be careful to exclude every bubble of air. If the apparatus be kept for a half hour at a temperature of from 80° to 90° F., a bubble of gas will appear if sugar be present in the smallest quantity. The apparatus may be placed in the sun or near a heater, but the temperature should not be higher than 100°.

NEW THERMOMETRIC SCALE.

F. Salmon (*Zeit. f. angew. Chem.*) proposes a scale which has an absolute relation to zero, so that its readings directly indicate the volumes of gases at various temperatures. The starting point is 273° C.; from this to the freezing point of water the scale is divided into 100 equal parts, so that 0° C. corresponds to 100 of the new scale. From this to 273° C. the scale is again divided into 100 equal parts, 273° C. being 200, the same proportion of division being continued as far as desired. Each degree of the scale is therefore equal to 2.73° C. and 1° to 0.3665° of the new scale; the boiling point of water lies at 136.6°, The use of the new scale is seen from the following examples: One cubic metre of gas at 0° C. or 100° absolute temperature would measure at the boiling point of water (136.6°) 1,366 liters. At 200° C. or 173.2 absolute temperature, it would have a volume of 1,732 liters. G. Lunge recommends this scale as forming the solution of a little difficulty which is felt in gas analysis.

ESTIMATION OF TOTAL ALKALOIDS IN QUININE BARKS.

The following method has been recommended by Herr W. Haubensak as preferable to that in general use; the chief difference is that sulphuric acid is used to take up the alkaloids from the ether-alcohol ammonia solution, by which means they are obtained free from resinous matters and wax: Twenty grams of the bark is very finely powdered and put into a 500 c.cm. flask with 10 c.cm. of 10 per cent. ammonia and 20 c.cm. of 94 per cent. alcohol; 170 c.cm. of pure ether is added, and the whole shaken occasionally during two or three hours. Pour off 100 c.cm. of the clear extract into a separator, and shake with 50 c.cm. of water and a slight excess of sulphuric acid. Allow the fluids to separate, and run off the lower acid solution; warm, to expel the dissolved ether, and return to the separator; add 30 c.cm. of chloroform, liberate the alkaloids with a few drops of soda, shake well, run off the chloroform solution on to a tarred dish. Allow to dry spontaneously in the air, and then at 100 degrees, and finally weigh. The process occupies four or five hours, and is entirely satisfactory.

NEWS AND MISCELLANY.

THE PAN-AMERICAN MEDICAL CONGRESS.

The Committee on Peamanent Organization met at St. Louis, October 14, 15, and 16, 1891, and adopted a series of General Regulations for the permanent organization of the Pan-American Medical Congress, and a series of special regulations for the government of the first meeting, and recommended that the Incorporators adopt both series of regulations as the organic law of the Congress.

Pursuant to such Regulations the following general officers were elected:

William Pepper, M.D., LL.D., Philadelphia, Pa., President; Abraham M. Owen, A.M., M.D., Evansville, Ind., Treasurer; Charles A. L. Reed, M.D., Cincinnati, Ohio, Secretary General.

International Executive Committee:—Argentine, Dr. Pedro Lagleyze; Bolivia, Emilio de Tomassi; Brazil, Dr. Carlos Costa; British North America, Dr. James F. W. Ross; British West Indies, Dr. Jas. A De-Wolf; Chili, Dr. Moises Amaral; Columbia, P. M. Ibañez; Costa Rica, Dr. D. Nuñez; Ecuador, Dr. Ricardo Cucalon; Guatemala, Dr. José Monteris; Haiti, Dr. D. Lamothe; Hawaii, ———; Spanish Honduras, Dr. George Bernhardt; Mexico, Dr. Tomas Noriéga; Nicaragua, Dr. Juan I. Urtecho; Paraguay, ———; Peru, Dr. José Casamira Ulloa; Salvador, Dr. David J. Guzman; Santa Domingo, ———; Spanish West Indies, Dr. Juan Santos Fernandez; United States, Dr. A; Vander Veer; Uruguay, Dr. Jacinto De Leon; Venezuela, Dr. Elias Roderiguez; Danish, Dutch, and French West Indies, ———.

The Auxiliary Committee nominated by the various members of the Committee on Permanent Organism each for his own state, and already commissioned by the Chairman, was affirmed.

The election of officers of sections was begun, but time would not permit of the completion of the list which was referred to a special committee with power to act. It has been deemed inexpedient to publish the list until it is completed, which can hardly be accomplished before the meeting of the Committee on Permanent Organization at Detroit in June; but the organization of particular sections will be announced through the medical press as rapidly as officers are elected by the special committee.

In accordance with the wish of the Committee on Permanent Organization as expressed in Special Regulation No. 4, Drs. I. N. Love, A. B. Richardson, L. S. McMurtry, R. B. Hall, T. V. Fitzpatrick, and Charles A. L. Reed met in Cincinnati and signed the legal form of application for Articles of Incorporation of the Pan-American Medical Congress, which Articles of Incorporation were duly issued by the Secretary of the State of Ohio, under date of March 15, A.D. 1892.

At a meeting of the Incorporators held March 16, 1892, the Regulations, general and special, recommended by the Committee on Permanent Organization were formally adopted as the organic law of the Pan-American Medical Congress in accordance with the Laws of Ohio, and all elections had by the Committee on Permanent Organization, in accordance with such regulations were confirmed and made a part of the laws of the Congress.

Pursuant to the Laws of Ohio and the Regulations adopted as above, and in accordance with nominations by the Committee on Permanent Organization, the Incorporators elected fifteen Trustees as follows:

Dr. W. T. Briggs, Tenn.; Dr. Geo. F. Shrady, N. Y.; Dr. P. O. Hooper, Ark.; Dr. S. S. Adams, D. C.; Dr. H. O. Marcy, Mass.; Dr. J. F. Kennedy, Iowa; Dr. H. D. Holton, Vt.; Dr. L. S. McMurtry, Ky.; Dr. N. S. Davis, Ills.; Dr. Levi Cooper Lane, Calif.; Dr. I. N. Love, Mo.; Dr. Hunter McGuire, Va.; Dr. J. C. Culbertson, Ill.; Dr. A. Walter Suiter, N. Y.; Dr. C. H. Mastin, Ala.

Drs. L. S. McMurtry (Ky.), I. N. Love (Mo.), and W. W. Potter (N. Y.), were designated to act as members of the Executive Committee.

The organization of the Congress is complete in British North America, the British West Indies, the Spanish West Indies, Gautemala, Nicaragua, United States of Colombia, Brazil, Uruguay, Venezuela, and the Argentine. It is confidently expected that the nominations from the remaining countries will be in by June.

It is expected to announce the completed organization of the Congress, its sections and auxillary committees, domestic and foreign, by July 1, 1892.

On behalf of the Committee on Permanent Organization.

CHARLES A. L. REED, Chairman.
J. W. CARHART, Secretary.

DR. D. HAYES AGNEW.

At a meeting of the Medical Faculty of the University of Pennsylvania held Thursday March 24th, the following minute was adopted:

The Faculty of the Medical Department of the University of Pennsylvania, desires to place upon record its profound grief at the irreparable loss sustained in the death of Dr. D. Hayes Agnew, and to express its thorough appreciation of the nobility of his personal character and the enduring excellence of his professional achievements.

Dr. Agnew was for years a regular attendant at the meetings of this Faculty, and his wise counsel, his unswerving advocacy of every progressive movement and of all that tended to raise the standard of teaching and of the profession, have left their indelible mark on the history of its proceedings.

As a didactic lecturer, he was unsurpassed. Without apparent effort and with a skill born of thorough knowledge and perfect mastery of his theme, each subject was presented to the student so clearly, simply, and directly, that it remained a part of his medical knowledge.

As a clinical lecturer, his enormous experience and his diagnostic and operative skill made him pre-eminent. The skill, which amounted to genius, was the foundation of his scientific greatness, and often enabled him at a glance to detect conditions which had eluded the search of others. No clinical observation even in times long past, escaped his memory, and his experience, almost without exception, furnished a parallel to the rarest and most obscure cases. He had, in addition, the faculty of elucidating in a few words the method by which he reached his conclusions, and this unusual combination of qualities gave him his unquestioned position as the leading teacher and practitioner in surgery in this country. His colleagues can bear

witness to his warm friendship, which never failed in time of need; to his genuine love for his work and his eager desire to acquire every new fact that might benefit his patients; to his generous support of the feeble, the halting and unfortunate in the profession; to his respect for every honest opinion even if it differed from his own; to his quick and ready sympathy and his tender treatment of all those who claimed either his personal or his professional help. His gentle courtesy and kindly bearing won the love of all with whom he came in contact. To the members of this Faculty, his students of years gone by, his colleagues of yesterday, and always his loving friends, his death comes as a personal bereavement.

Resolved that a copy of this minute be sent to the family of Dr. Agnew, and that it be suitably published.

JAMES TYSON,
March 25th, 1892. Dean.

MEDICO-CHIRURGICAL COLLEGE OF PHILADELPHIA.

The Chair of Obstetrics has become vacant through the resignation of Dr. E. E. Montgomery, who will hereafter devote himself entirely to the Chair of Gynæcology.

A NEW AND POWERFUL LIGHT.

A very intense light, such as is required for photographic or occasionally for medical purposes, may, as is well known, be readily obtained by burning magnesium ribbon, which has, however, the disadvantage of being somewhat expensive. An excellent substitute has been found by a French chemist, M. Villon, in aluminium, which is about a third of the price of magnesium, and which may be utilized in the same manner by burning it in a spirit lamp, or, if a flame of much more intense brilliancy is required, in a coal, gas, or spirit flame supplied with a jet of oxygen. In these it burns without emitting fumes, in which respect it is superior to magnesium. The light given by aluminium has a high actinic power—nearly as high, indeed, as that of magnesium. The most convenient way of obtaining a very intense light, according to M. Villon, is to use a lamp provided with a jet of oxygen at the centre of its flame, into which powdered aluminium mixed with a quarter of its weight of lycopodium and a twentieth of its weight of nitrate of ammonium can be projected by means of a tube furnished with an air-ball. This gives an exceedingly intense light, without smoke. A mixture of aluminium powder with chlorate of potash and sugar can be ignited, giving an intense light by means of gun-cotton, but is somewhat dangerous. Probably the best plan for medical photography, or for laryngoscopic and auroscopic and other demonstrations, would be to burn a ribbon of aluminium in an ordinary spirit lamp. Of course, if oxygen and an oxy-hydrogen, or an oxy-alcoholic, lamp were at hand a much more intense light could be obtained.—*Lancet.*

DR. BROWN SEQUARD AND ISOPATHY.

Drs. Brown-Sequard and d'Arsonval propose a *new* therapy, (*Rev. int. de bib. Med.*) consisting of combating the morbid manifestations of an organ, by injecting the juicy extract of that organ. Thus. in cases of myxœdema, of exophthalmic goitre, or after thyroïdectomy, they propose to use the *thyroïdian juice;* in cases of Addison disease, the liquid of suprarenal capsules; in diabetes, the juice of pancreas; in cases of leucocythæmia, the juice of lymphatic glands, of spleen or of marrow of bones; in cases where the muscles are flabby, thin and weak, without any existence of nervous affection, of juice extracted from muscles. The liquids extracted from glands or other organs of mammalians, without sufficient sterilization and filtration, generally always cause death in less than ten days, but rarely by septicæmia, which prove that toxic substances or those liable to become so, are furnished by the principal organs of the system. The juice extracted from sexual glands are the only exceptions and are not dangerous. The method employed by the authors is to prepare a glycerinated solution made of one-tenth of the juice, obtained by maceration of the tissue for about a half hour, adding to it three times its weight of pure officinal glycerine, then macerate for another half an hour, after adding distilled water six times the weight of the tissue juice. Filter and sterilize by CO_2 at 40 atmosphere.

Thus Dr. Onimus, of Monaco, has used, in a case of asystole, the hypodermic injection of cardiac muscle, which made the suffocative attack disappear. Other symptoms, such as, difficulty to walk, breathlessness, general weakness, have been ameliorated by injections of extracts prepared by maceration of pieces of spinal marrow in glycerine. Similar injections have ameliorated a case of labio-glossolaryngeal paralysis, and same results obtained in three other cases of spinal troubles, such as, transverse myelitis, chronic meningitis and ataxia in its early stage.